The Early Writings of FRANÇOIS HEMSTERHUIS, 1762–1773

Edited and Translated by
Jacob van Sluis and Daniel Whistler

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Volume 1 *Early Writings, 1762–1773*
Volume 2 *The Dialogues, 1778–1787*
Volume 3 *Philosophical Correspondence and Fragments*

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With introductions by Peter Sonderen, Jacob van Sluis and Gabriel Trop

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Series Introduction

Jacob van Sluis and Daniel Whistler

Born in Franeker in 1721, François Hemsterhuis was raised on Greek and mathematics by his father, the philologist Tiberius Hemsterhuis. After Tiberius's appointment to the University of Leiden in 1740, Hemsterhuis found himself at the heart of Dutch Newtonianism and imbibed its experimental methodology, taking lessons with Willem 's Gravesande, forging a lifelong friendship with Petrus Camper and developing a passion for the design of astronomical instruments. After brief stints as a military engineer and a tutor, Hemsterhuis relocated to The Hague to enter the Dutch civil service, rising to the post of First Secretary to the Council of State. Correspondence with an Amsterdam banker, Theodorus de Smeth, led to a series of four epistolary publications in French on art and philosophy during the 1760s and early 1770s: *Letter on an Antique Gemstone*, *Letter on Sculpture*, *Letter on Desires* and *Letter on Man and his Relations*. Then, in 1775, he began an intense philosophical collaboration with Amalie Gallitzin, with whom he would exchange over 2,000 letters as the 'Socrates' to her 'Diotima'. Their joint work resulted in four dialogues written in French during a three-year creative burst, from 1778 to 1781: *Sophylus*, *Aristaeus*, *Simon* and *Alexis*. On Gallitzin's relocation to Münster, Hemsterhuis became increasingly drawn into German philosophical circles, visiting J. G. Herder and J. W. Goethe in Weimar and forging an intellectual alliance with F. H. Jacobi during the latter's battles over Spinoza. He died in 1790 at The Hague.[1]

To A. W. Schlegel, Hemsterhuis – 'a Dutchman, who wrote in French but was only properly esteemed by Germans' – was 'a prophet of transcendental idealism'; to J. G. Herder, his was 'an original philosophy, such as appears only once in a hundred years'; to C. M. Wieland, he was 'the Plato of our times'; and to J. G. Hamann, he was the 'Haagsche' Socrates.[2] And the influence of Hemsterhuis's philosophy on German Classicisms, Romanticisms and Idealisms is elsewhere palpable in the writings of, among others, Goethe, Hegel, Hölderlin, Jacobi, Jean Paul, Kant, Lessing, Novalis, Schelling, Friedrich Schlegel and Schleiermacher. Such a legacy has gained Hemsterhuis the rank of the most influential modern Dutch philosopher after Spinoza. But his philosophy matters not just because of its German reception: it is also a monument to late Dutch Newtonianism, a key moment in the north European recovery of Plato and Socrates in the second half of the eighteenth century, a dialogue partner for many Enlightenment philosophies (not only Diderot's, but d'Alembert's and Mendelssohn's too), a source for later definitions of beauty (from that of Tolstoy to that of Croce), and a product of advances in optics, astronomy and telescope design at the period; and it went on to influence nineteenth-century constructions of the categories of 'Christian Platonism' and modern 'pantheism'. Hemsterhuis's philosophical works – which range from empiricist arguments for metaphysical dualism to a history of art, from

arguments for the existence of God to the priority of sentiment and enthusiasm, from the critique of private property to the role of imagination in constituting ethical character – are essential reference points for any proper understanding of late eighteenth-century thinking.

The Edinburgh Edition of the Philosophical Works of François Hemsterhuis provides the first ever English translations of his oeuvre. Timed to coincide with the tricentenary of his birth in December 2021, its three volumes make Hemsterhuis's philosophy as a whole accessible to Anglophone readers, building on the growing critical attention it has received: ever since Klaus Hammacher launched modern Hemsterhuis scholarship with his 1971 monograph *Unmittelbarkeit und Kritik bei Hemsterhuis*, it has been a domain charted in ever-increasing detail by, among many others, Marcel Fresco, Henri Krop, Philippe Lacoue-Labarthe and Jean-Luc Nancy, Elio Matassi, Claudia Melica, Heinz Moenkemeyer, Paul Pelckmans, Michael John Petry, Peter Sonderen, Wiep van Bunge, Jean-Louis Vieillard-Baron and Michiel Wielema.[3] Over the last twenty years alone, new editions of Hemsterhuis's writings have appeared in French, Dutch and Italian.[4] More recently still, Hemsterhuis's political reflections have become important reference points for Jonathan Israel's history of the Enlightenment and both Dalia Nassar and Leif Weatherby make much of Hemsterhuis's conceptual influence on the German Romantics.[5] This edition builds on the growing body of research, while demonstrating, in addition, Hemsterhuis's significance for those interested in experiments with philosophical styles, Deism, art theory and the history of the physical sciences. Hemsterhuis's writings matter not just to readers in philosophy departments, but also in modern languages departments, history departments, literature departments, art history departments, religion departments and politics departments.

This is the first translated edition in any language to make use of the recently published critical edition of Hemsterhuis's works and complete correspondence.[6] It consists of three volumes: volume 1 (*Early Writings, 1762–1773*) comprises Hemsterhuis's first series of publications, penned as letters to his acquaintances in The Hague, including the *Letter on Sculpture*, *Letter on Desires* and *Letter on Man and his Relations*; volume 2 (*Dialogues, 1778–1787*) presents translations of Hemsterhuis's later series of published dialogues – *Sophylus*, *Aristaeus*, *Simon* and *Alexis*; and the third volume (*Philosophical Correspondence and Unpublished Writings, 1773–1789*) supplements the earlier volumes with the *Letter on Atheism*, *Letter on Optics* and *Letter on Fatalism*, among other fragments, as well as selections from Hemsterhuis's feted correspondence with Gallitzin, dubbed 'the most significant European correspondence of the eighteenth century'.[7]

The texts used for this edition are based faithfully on the French critical edition established by van Sluis in 2015, with the exception of some texts in volume 3 which were not included in van Sluis's *Œuvres philosophiques* and are instead based on Petry's 2001 *Wijsgerige werken*, van Sluis's recent *Œuvres inédits*, or van Sluis's edition of the complete correspondence.[8] As always, we have made a number of key translation decisions that inform what follows – including:

1. *L'homme*: Hemsterhuis uses 'homme' and the corresponding pronouns not just in the title *Lettre sur l'Homme et ses rapports* but throughout his writings to designate

the paradigmatic human subject. There is typically nothing particularly male about this subject and, indeed, a twenty-first-century (Anglophone) Hemsterhuis might well have decided upon the gender-neutral *Letter on Humans and their Relations*. Nevertheless, Hemsterhuis's language is decisively marked by the eighteenth-century discourse on 'man' – with all the gendered logic this entails – and we have chosen not to disguise this fact, but rather to insist on Hemsterhuis's part in a tradition that runs from Pope's *An Essay on Man* to Reid's *Essays on the Intellectual Powers of Man*.

2. *Le rapport*: 'Rapport' is the master-concept in Hemsterhuis's philosophy, appropriated from debates in French aesthetics and metaphysics – particularly the philosophies of Diderot and Bonnet – but transformed into a figure of ontological interconnectivity. While 'relation' is in many ways a mistranslation of the underlying philosophical concept ('affiliation', 'connection', even 'correspondence' all get at its meaning more accurately), we have followed Hemsterhuis himself in employing this fairly neutral term ('relation') as an unobtrusive lexical marker for such a rich and fluid concept.
3. *La relation*: Hemsterhuis also uses the more precise 'relation' in two contexts: first, in the sense of a proportion when discussing order, symmetry or numerical series; secondly, in the sense of a personal relationship, particularly with the divinity. We translate 'relation' as 'relationship' in the latter case and 'interrelation' in the former case to distinguish it from translations of 'rapport'.
4. *Velléité and volonté*: From Diderot onwards, Hemsterhuis's readers have baulked at the obscure concept of 'velléité' and tried to determine the exact nature of the relation between it (as an indeterminate power that constitutes part of the individual's essence) and 'volonté' (as a particular purposive effect). So as to replicate the alienating effect of Hemsterhuis's terminology, we employ the similarly obscure English cognate 'velleity' and translate 'volonté' more standardly as 'act of will' or, on occasion, 'will'.
5. *Sentir*: Few translations matter as much in determining Hemsterhuis's place in the history of ideas as 'sentir'. When translated as 'to sense', it places him firmly in eighteenth-century empiricist and Newtonian traditions; when translated as 'to feel', it both thematises his Rousseauian tendencies and anticipates his role in the Romantic movement. We have, where possible, opted for the former, despite it occasionally effacing the close link between 'sentir' and 'sentiment'.
6. *Le tact*: Hemsterhuis is a great thinker of tact, but he also grounds his thinking firmly in a study of the five sense organs, where the French 'tact' refers to touch. He thereby implicitly plays on a continuity between 'le tact' as sensation and 'le tact' as judgement that is obscured by the English lexical distinction.

Footnotes (denoted by an asterisk, *, then dagger, †, etc.) are Hemsterhuis's own (or, in the case of *Simon*, contain additional material by Hemsterhuis) and often refer the reader to clarifications and explanations given at the end of each work. We provide information concerning the (sometimes) obscure erudite references that litter Hemsterhuis's texts in the translators' endnotes, indicated by an Arabic numeral. They follow at the end of the volume. We have, as far as possible, refrained from either providing interpretative material or making judgements on

Hemsterhuis's sources within these endnotes. As van Bunge has recently emphasised, Hemsterhuis was 'almost secretive' about such sources[9] and we have no wish to restrict the possible connotations of a conceptual armoury that draws variously on classical allusions, Dutch Newtonianism, the French Enlightenment and much more – often at the very same time.

Hemsterhuis himself long held translation to be an impossible art and despaired when his own writings were first translated into German.[10] Subsequently, Jacobi's rendering of *Alexis* into German changed his mind on this point,[11] and, while we have no desire at all to compete as translators with Jacobi, we do hope that this edition does some justice to the rigour and grace of Hemsterhuis's 'Socratic poetry'.[12]

Hemsterhuis's Life, Works and Reception

Date	*Chronology and Context*
1717	Tiberius Hemsterhuis takes up position as Professor of Greek and Mathematics at the University of Franeker
27 December 1721	Hemsterhuis born in Franeker in the Dutch Republic to Tiberius and Cornelia, second daughter of Jacob de Wilde, a noted collector of antiquities, which the family inherits
1738	Tiberius additionally appointed Professor of Natural History at the University of Franeker
1740	Hemsterhuis moves to Leiden, where Tiberius is appointed Professor of Ancient Greek and History at the University of Leiden; informally attends private seminars given by Willem 's Gravesande (Professor of Mathematics and Astronomy) and Pieter van Musschenbroek (his successor)
Summer 1740	Hemsterhuis begins lifelong friendships with Petrus Camper, J. N. S. Allamand (later Professor of Philosophy at Franeker and Leiden) and Hendrik Feyth, an enthusiast of optical instruments in Amsterdam
1741	Sale of Jacob de Wilde's antique gemstone collection
28 February 1742	Death of 's Gravesande
Early 1740s	Hemsterhuis participates in experimental natural history at Leiden, describing – through Abraham Trembley's indirect influence – the freshwater polyp, as well as the visual anatomy of the dragonfly
1746	Camper completes his *Dissertatio optica de visu*; Condillac publishes *Essay on the Origin of Human Knowledge*
24 June 1747	Hemsterhuis officially matriculates in mathematics at the University of Leiden and begins career in military engineering
Late 1747	As military engineer, Hemsterhuis draws plans of recently besieged Bergen op Zoom's military defences
1748	La Mettrie publishes *L'Homme machine*
28 August 1748	Birth of Adelheid Amalie von Schmettau (later Gallitzin) in Berlin
1750	Diderot and d'Alembert begin publishing the *Encyclopédie*
1751	Death of William IV

1752	Around this time, Hemsterhuis works as tutor to the Van Aylva family and perhaps also the Fagel family
	Caylus begins publishing his *Inventory of Antiquities*
1755	Hemsterhuis nominated as Professor of Philosophy at the University of Franeker, but is passed over for the position
December 1755	Hemsterhuis accepts role as civil servant at The Hague, rising to First Secretary to the Council of State
1757	Hemsterhuis begins lifelong correspondence with Pieter van Damme on antique coins and gemstones
1760	Hemsterhuis observes the Great Comet and is commissioned to design a memorial for Boerhaave (later installed in the Pieterskerk, Leiden)
	Bonnet publishes his *Analytic Essay on the Faculties of the Soul*
1762	*Letter on an Antique Gemstone* is published in response to an enquiry by Amsterdam banker, Theodorus de Smeth
	Rousseau publishes *Emile*; Fürstenberg becomes 'prime minister' of the Bishopric of Münster
1763	Hemsterhuis successfully nominates Camper as Professor of Anatomy at University of Groningen
1764	Winckelmann publishes *History of Art in Antiquity*
January 1765	Hemsterhuis drafts *Letter on Sculpture*
1766	William V reaches maturity and assumes powers of Stadtholder
7 April 1766	Death of Tiberius Hemsterhuis
1767	Lessing publishes *Laocoon*
28 August 1768	Amalie von Schmettau marries Prince Dmitri Gallitzin, Russian *ministre plenipotentiair* to France, in Aachen
November 1768	Hemsterhuis drafts *Letter on Desires*
1769	*Letter on Sculpture* is published
	Gallitzins move to The Hague, where Dmitri is appointed Russian Ambassador to the Dutch Republic; Diderot writes *D'Alembert's Dream*
August 1769	Jacobi reads *Letter on Sculpture* and attempts to arrange a visit to The Hague
1770	*Letter on Desires* is published; Hemsterhuis designs first ever achromatic binocular telescope, which is manufactured over the next few years through the London firm John Dollond

1771	Italian astronomer G. F. Fromond visits Hemsterhuis and borrows manuscript on optics
	Garve publishes review of *Letter on Sculpture*; Herder mentions Hemsterhuis in correspondence; early community of Hemsterhuis readers gathers around de la Roche, Merck and Wieland
	Dmitri Gallitzin publishes posthumous edition of Helvétius's works
1772	*Letter on Man and his Relations* is published
	Short review of *Letter on Man* appears immediately in the Parisian *Journal encyclopédique*
1773	*Philosophical Description of … Fagel* is published, after Fagel's death on 28 August
	Nieuhoff completes doctoral dissertation at Leiden, *De sensu pulcri*, influenced by Hemsterhuis; Herder familiarises Hamann with Hemsterhuis's writings
June 1773	Hemsterhuis meets Diderot in The Hague, where the latter is staying with Dmitri Gallitzin on his way to Russia
August 1773	Diderot and Jacobi discuss Hemsterhuis when Diderot passes through Düsseldorf
1774	Diderot returns to The Hague and presents Hemsterhuis with annotated copy of *Letter on Man*
1775	Herder announces a translation of *Letter on Sculpture*, but it never appears
Spring 1775	Hemsterhuis forges an intense and lasting friendship with Gallitzin (the 'Diotima' to his 'Socrates'), exchanging c. 2,000 letters over the next fifteen years
Late 1775	Gallitzin separates permanently from her husband and takes her children to the secluded country estate of Niethuis, near Scheveningen, where Hemsterhuis visits twice a week
1776	Sophie de la Roche visits The Hague
	US Declaration of Independence
January 1776	Hemsterhuis writes *Letter on Fatalism*
February 1776	Hemsterhuis finishes translation of Plato's *Symposium*
July 1777	Hemsterhuis meets the Abbé Raynal
1778	*Sophylus* is published
2 July 1778	Rousseau dies
December 1778	Hemsterhuis meets the French sculptors E. M. Falconet and A. M. Collot

1779	Hemsterhuis works on a catechism of 'true philosophy' for educating children
	D'Alembert comments approvingly on two of Hemsterhuis's published works
January 1779	Hemsterhuis begins correspondence with Fürstenberg in Münster on the latter's *Ordonnance on the Reform of Colleges*
May 1779	Hemsterhuis travels with Gallitzin to Münster to meet Fürstenberg
Summer 1779	*Aristaeus* is published
	Gallitzin moves permanently to Münster
October 1779	Hemsterhuis forges lasting friendship with Anna Perrenot (later Meerman) (the 'Daphne' to his 'Diocles')
1780	Hemsterhuis finishes the first version of *Simon* (published in translation in 1782)
	Herder reproduces a long extract from the *Letter on Man* in his *Letters Concerning the Study of Theology*
	Lessing finishes *The Education of the Human Race*; the fourth Anglo-Dutch War begins
June 1780	Jacobi visits Lessing in Wolfenbüttel and presents him with many of Hemsterhuis's works
9 October 1780	Hemsterhuis retires from post as First Secretary to the Council of State
1781	Hemsterhuis starts to reflect on the political state of the Dutch Republic
	Herder publishes a translation of *Letter on Desires* in *Der Teutsche Merkur*, followed by a critical commentary (*Love and Selfhood*)
	Kant publishes *Critique of Pure Reason*; the Patriottenbeweging (Patriot Revolt) begins with a proliferation of democrat pamphlets; Herschel discovers Uranus
February 1781	Hemsterhuis begins a several-month stay in Münster and meets Jacobi at his estate outside Düsseldorf
Spring 1781	Hemsterhuis writes *Alexis* while in Münster (published in 1787 by Jacobi)
1782	Blankenburg translates Hemsterhuis's works for a two-volume *Vermischte philosophische Schriften*
	Publication of Rousseau's *Confessions*
1783	Hemsterhuis begins, but then puts aside, unfinished dialogue *Alexis II*

March 1783	Hemsterhuis completes second version of *Simon*
December 1783	Hemsterhuis is present at one of the first launches of an unmanned Montgolfier hot-air balloon
1784	Jacobi translates *Alexis* (published in 1787 alongside the French original)
	Fourth Anglo-Dutch War ends
31 July 1784	Diderot dies
7 August 1784	Jacobi sends Hemsterhuis a long letter on Spinoza which appears in full in the first edition of Jacobi's *On the Doctrine of Spinoza*
November 1784	Jacobi presents Goethe with Hemsterhuis's dialogues
1785	Hemsterhuis is recalled for secret meetings of the Council of State aimed at quashing the Patriot Revolt; he meets Duke Ernst II of Saxe-Gotha, who commissions a binocular telescope from him
	Jacobi publishes *On the Doctrine of Spinoza*; the Patriot Revolt reaches its climax in a series of riots and sieges
August 1785	Hemsterhuis embarks on a tour of Germany, lasting into the autumn, with Gallitzin and Fürstenberg, visiting Weimar, Dresden and Gotha
1786	Hemsterhuis is invited to design vases for the Wedgwood company, England; he begins an intense reading programme of contemporary German authors, including Goethe's novels and plays
28 August 1786	Gallitzin formally re-enters the Catholic Church after a serious illness and corresponds with Hemsterhuis on the nature of 'belief'
1787	Hemsterhuis writes an instruction manual for the Duke of Saxe-Gotha's binocular telescope; Hamann spends time in Münster, forging a rival friendship with Gallitzin
September 1787	Hemsterhuis pens the first version of the *Letter on Atheism* in response to Jacobi's request
	Restoration of Stadtholder William V after an invasion of Prussian troops
June 1788	Hemsterhuis goes to Münster, where he stays until December; he receives J. F. H. Dalberg's *Reflections on Melody, Harmony and Rhythm*
21 June 1788	Hamann dies in Münster; Hemsterhuis designs his gravestone
December 1788	Hemsterhuis completes *Letter on Optics*
January 1789	Hemsterhuis revises *Letter on Atheism* and submits it to Jacobi (who publishes it in the second edition of *On the Doctrine of Spinoza*, 1790)
7 April 1789	Camper dies

14 July 1789	Storming of the Bastille and the start of the French Revolution
7 July 1790	Hemsterhuis dies
1791	Public auction of Hemsterhuis's library
	C. G. Herrmann publishes *Kant and Hemsterhuis in Respect to their Definition of Beauty*; G. Forster calls Hemsterhuis 'the Plato of our century'
1792	H. J. Jansen publishes a two-volume edition of Hemsterhuis's works, *Oeuvres philosophiques*, in Paris; Goethe visits Gallitzin in Münster, discusses Hemsterhuis's legacy and later receives *Letter on Optics* from her
January 1792	A. W. Schlegel meets Novalis, whose 'favourite writers are Plato and Hemsterhuis'; the Schlegel brothers go on to correspond extensively on Hemsterhuis
December 1792	Goethe takes Hemsterhuis's gem collection to Weimar
1793	Schleiermacher studies Hemsterhuis's work in the context of a commentary on Jacobi's *On the Doctrine of Spinoza*
April 1793	Herder and Jacobi discuss a memorial to Hemsterhuis
1794	Hegel and Hölderlin develop *Vereinigungsphilosophie* in Frankfurt with Hemsterhuis as a key source; the German Idealist C. G. Bardili publishes a dialogue entitled *Sophylus*
1795	Collapse of the Dutch Republic
1797	A third volume of the *Vermischte philosophische Schriften* is published, possibly by K. T. von Dalberg; it includes an essay comparing Hemsterhuis to Kant
September 1797	Novalis begins a three-month intensive reading of Hemsterhuis, resulting in his thirty-six-page *Hemsterhuis-Studien*
1802	Schelling discusses *Alexis* in his *Further Presentations of the System of Philosophy*
1803	Dmitri Gallitzin dies
1804	Jean Paul's *School of Aesthetics* launches a critique of Hemsterhuis's definition of beauty
27 April 1806	Gallitzin dies
1807	Stolberg sends Goethe Hemsterhuis's unpublished *Treatise on Divisibility to Infinity* from Münster
1809	Jansen republishes his Paris edition of Hemsterhuis's works in a second, extended edition

1813	De Staël's *De l'Allemagne* groups Hemsterhuis with Jacobi and Lessing as the three progenitors of transcendental idealism; Coleridge discusses Hemsterhuis's definition of reason, alongside Jacobi, in volume 1 of *The Friend*
1814	J. Neeb publishes *On Hemsterhuis and the Spirit of his Writings*
1819	Jacobi dies
1825	S. vande Weyer publishes a new two-volume edition of Hemsterhuis's *Œuvres philosophiques* in Louvain
1840	L. S. P. Meyboom devotes his doctoral dissertation at the University of Groningen to a 'theological-philosophical' reading of Hemsterhuis as a Christian Platonist
1846	Meyboom publishes the standard three-volume edition of Hemsterhuis's *Œuvres philosophiques*; William Hamilton mentions Hemsterhuis in his survey of *The Philosophy of Common Sense*

Abbreviations

B François Hemsterhuis and Adélaïde Amélie de Gallitzin, *Briefwisseling* (*Hemsterhuisiana*), 16 vols, ed. Jacob van Sluis. Berltsum: van Sluis [Lulu print on demand], 2010–17. Digitally available at: https://www.rug.nl/library/heritage/hemsterhuis/ and in print at: www.lulu.com. Citations by volume and numbered letter (e.g. *B* 2.45 – volume 2, letter 45).

EE François Hemsterhuis, The Edinburgh Edition of the Philosophical Works of François Hemsterhuis, 3 vols, ed. and trans. Jacob van Sluis and Daniel Whistler. Edinburgh: Edinburgh University Press, 2022–. *EE* is used to cite other volumes in this series (e.g. *EE* 2.112 – volume 2, p. 112). Where citations are to the same volume, they take the form of, for example, 'p. 45 below'.

IN François Hemsterhuis, *Œuvres inédits*, ed. Jacob van Sluis. Berltsum: van Sluis [Lulu print on demand], 2021.

LSD François Hemsterhuis, *Lettres de Socrate à Diotime. Cent cinquante lettes du philosophe néerlandais Frans Hemsterhuis à la princesse Gallitzin*, ed. Marcel Fresco. Frankfurt am Main: Hänsel-Hohenhausen, 2007.

OP François Hemsterhuis, *Œuvres philosophiques*, ed. Jacob van Sluis. Leiden: Brill, 2015.

WW François Hemsterhuis, *Wijsgerige werken*, ed. Michael John Petry. Leeuwarden: Damon, 2001.

INTRODUCTIONS

Hemsterhuis's Art and Aesthetics: Theories in the Making

Peter Sonderen

> When the eye, the hand and the head are simultaneously engaged in art, when the eye sees the best in it, the hand knows how to draw it, and the head knows how to explain it, then a work emerges that delights the connoisseur, that guides the artist, and teaches the philosopher. Hemsterhuis is the man from whom we can expect such a work; and this letter is itself a part of it. – In fewer sheets of paper it would be impossible to utter such new, or at least newly conceived, newly connected, newly applied concepts.
>
> Christian Garve, *Neue Bibliothek der schönen Wissenschaften und der freyen Künste*, 1771[1]

Sculptural Thinking: Art, Philosophy, Experiment, Artistic Research and Aesthesis

The epigraph comes from Christian Garve's review of the *Letter on Sculpture*, written one and a half years after its publication (although Hemsterhuis had completed a draft of the letter as early as 1765). Alongside Immanuel Kant and Moses Mendelssohn, Garve was to become one of the most famous representatives of the late German Enlightenment, even though he was closer in age to a younger generation of critical German thinkers and artists. His review contributed enormously to establishing Hemsterhuis's name and ultimately his fame: it provoked both older and younger generations of German philosophers and writers into following the subsequent development of Hemsterhuis's philosophical and visual ideas.

A few years ago, I obtained an original print of the *Letter on Sculpture* and it was worth the expense, since it is – as Garve rightly points out – a work of art in its own right, combining philosophical ideas and artistic images (drawn by Hemsterhuis himself) in an indivisible and unique whole.[2] With this book, Hemsterhuis introduced a completely new model for thinking about art, philosophy and beauty – one which, seen in its entirety (i.e. seen in terms of the integration of artistic forms and philosophical ideas), was to bear fruit, particularly in what is now called 'artistic research', or 'research in the arts'. This relatively recent development in art seeks to connect research and art meaningfully – or, to put it more dualistically: to connect theory and practice. That is, it asks the questions: How can a work of art become research and how can research become art? How, in short, do theory and practice encounter each other in artistic praxis, and how are they or can they be entangled?[3]

The answer to these questions cannot merely be found in Hemsterhuis's writings, but his new 'organic' or reciprocal approach to art and philosophy was developed at a period that also – simultaneously – established our modern concept of art, a period that Foucault would call the arrival of the episteme of man and Rancière the appearance of the aesthetic regime. In the late eighteenth century, Art – in the singular and with a capital – would receive, for the first time in history, its own domain, its own history and its own jurisdiction. It went on from this moment to create its particular history and, consequently, its own teleology (The History of Art), its own public space (The Museum) and its own public analysis (Art Criticism, Art History).[4] Philosophy played a very important role in this development.

We can follow this process by which the arts came to be assembled under the auspices of Art within Hemsterhuis's philosophy and artistic practice. His experimental approach points forward to the late twentieth-century phenomenon of research in and through the arts, because he inserted art into a regime both theoretical and practical – one which would no longer be a closed (theoretical) system but, rather, would refer to something *in the making*.

Into Hemsterhuis's Workshop

Workshops – at least in most modern art academies post-Bauhaus – function, in general, as spaces where artistic makers discover all kinds of materials and possibilities to compose their creative works. However, a workshop for working with ideas is lacking, even if university libraries increasingly function as a place for discovery and 'working with theory'. The meeting of practice and theory also occurs in Hemsterhuis's philosophical workshop, which is roughly based on two imperatives: first, to show ideas and images in the making, and, second, to reject (closed) thought systems. Hemsterhuis's philosophical practice does not aim at producing and imposing a full-fledged, rounded theory on the world, but, instead, proposes to function more as an artistic sketch that requires the look of the other for completion. His philosophical workshop functions as a space where things and ideas are tried out and where the making of them is still visible, even if he could not prevent himself from writing or drawing things that do seem very well-rounded or well-made. At any rate, fundamental to all this was his constant rejection of the construction of systems (see *EE* 2.47). Philosophy is not a fixed system but something that is made over and over again – and this is because it starts with the human, and not with God as Spinoza had suggested. Spinoza began from a geometric definition of God, whereas Hemsterhuis took the human being as a starting point. The human and God are permanently separated: as he puts it in correspondence, 'For [Spinoza], divinity is identified with the universe and for me the distance between the two is infinite' (*B* 7.29). Matter and mind do not coincide; matter is moved by something other than itself. The human being seeks and longs for union with God and all other things but will never entirely achieve it. And to make sense of this tendency Hemsterhuis uses (as becomes apparent in the *Letter on Sculpture*) works of art within a completely new, experimental context.

This open-endedness to Hemsterhuis's praxis is equally manifest in the questions he asks of readers in his texts (especially in his *Letters*) or in the way he uses his later dialogues to provoke the reader to think or act alongside him. This might be another important reason why younger German thinkers became so interested in his works, for they were read as having been written for and about them: here was a philosophy suited to the newly opened civic space, in which art and philosophy would become important actors, a space in which art (as 'Art') had lost its firm connection to the church and aristocracy. Art became a public matter, and philosophy a matter for man. Art was now to disclose new possible worlds, leaving behind its predominantly representative function. Instead of representing, it could start to present other possibilities, and Hemsterhuis hints at this aesthetic function most explicitly in *Alexis*, in which he uses different kinds of narrative forms to think the possible future and its relation to the past.

Drafts and Sketches

Hemsterhuis's philosophical texts are essentially intended as *sketches*,[5] invitations to co-think and co-observe what has merely been drafted (although even a sketch needs to be well executed). His earliest (published) writings are three rather short texts that explicitly focus on art: *Letter on an Antique Gemstone* dates from 1762, *Letter on Sculpture* from 1765 in its draft form and the *Letter on Desires* from 1770. The first is a short but erudite analysis of an antique gem in the collection of Theodorus de Smeth, a banker and one of the aldermen of Amsterdam. Hemsterhuis, who had also been, since 1757, an informal curator of the cabinet of antiquities of the Stadtholder, advised him to buy this stone in 1760 from the well-known gem engraver Lorenz Natter. This first printed work by Hemsterhuis, which the Royal Library in the Hague describes as 'only of interest to connoisseurs of antique stones; from a philosophical point of view the publication is irrelevant',[6] is indeed an important example of his connoisseurship, an intelligent iconographic analysis of one work of art. In retrospect, it also demonstrates, however, his philosophical starting point, namely the analysis of visual matters and their specific relation to the world of the mind.

When it comes to this astute practice of deciphering particular iconography, it is no surprise that one of the leading 'antiquarians' of the eighteenth century, Count de Caylus, became friends with Hemsterhuis. The idea of publishing works on their own collections of antiquities (such as the seven volumes on Caylus's own collection[7]) was becoming increasingly popular. Although each collector's express intention was to inform and educate the reader, this publication strategy also significantly increased the economic value of their collections. However, Hemsterhuis's contribution to this exhibition of antiquities, as exemplified in the letter to de Smeth, is very different from other publications of the time, owing to its very serious approach to one art-object alone. The letter also demonstrates how deeply involved Hemsterhuis was in Greek history and culture (a hallmark of all his writings), as well as how important the epistolary form was to him as a means to discuss and publish on antiquarian matters. It was de Smeth's decision to publish this letter,

and when he did so he retained its epistolary form, and did not present it as an article or some other genre to which antiquarians were more accustomed. In this sense, this writing also anticipates Hemsterhuis's inclination to render his writings into the witness of an event, that is, an (assumed) happening between one or more interlocutors. His intention was (even if he hesitated many times before publishing his texts) to make thinking and judging an open, that is, a public, affair. His texts are 'open books' that necessarily imply and involve the other.

Openness and Encounter: Meeting

Openness involves connection with the other. And this brings us to the *Letter on Sculpture*, which Hemsterhuis also wrote for de Smeth in the form of a letter. This text includes his famous definition of the beautiful,[8] as well as his ideas on the essence and history of sculpture, on the psychology of the aesthetic and on the two worlds, whose proper linking was the aim of his whole philosophy: the world of the mind (the moral world) and the world of matter. This letter prefigures his notorious predilection for staging an encounter between Socratic philosophy and the Newtonian philosophy of matter – an encounter that will be more fully worked out in his later dialogues, especially *Sophylus*, but it is still central to the development of the ideas on the work of art in the *Letter on Sculpture*.

A meeting of two entities generally implies movement and exchange of ideas. When a connection has been established, the meeting occurs: it is there, present. However, for Hemsterhuis, this connection does not emerge out of a longing for unification, but from a kind of *oscillation*, that is, *not* a fusion. A more recent term for this oscillation is 'entrainment': 'Entrainment is the tendency for an oscillating body to synchronise or lock into phase with other oscillating bodies. Entrainment is a pervasive phenomenon, appearing in physical, biological, psychological, and sociological systems.' And, not unimportant for our context, 'With entrainment order emerges'.[9] Whereas the word 'oscillation' is mainly used in a metaphorical sense (it is *like* a vibration…), 'entrainment' seems to indicate the actual oscillation in things. It works on the basis of the idea that things try to establish a shared order without giving up their own identity.

In the seventeenth century, the phenomenon of entrainment was recognised in the context of the thermo-acoustic studies of the Dutch scholar Christiaan Huygens.[10] Its first connection to immaterial, that is, human, affairs appears in Hemsterhuis's philosophy. In the course of his proof in the *Letter on Man* that feeling is an essential but hidden power, Hemsterhuis gives a very simple example of the immaterial capacity of entrainment in our bodily movements:

> When I go for a walk with someone whose legs are longer or shorter than mine, our first steps will not be isochronous; but in a very short time and without perceiving it, we will march in unison; and even when one of us intentionally puts the right foot and the other the left foot forward, we will have a disagreeable sensation of an unnatural effort. (p. 107 below)

As walking bodies attempt to synchronise their mutual actions through an apparently natural desire, they realise a kind of harmony, a certain kinship, an isochronal rhythm. The intercourse of walking legs uncovers a desire for a connection between the immaterial and the material world. Hemsterhuis's walking subjects demonstrate (for him, at least) that the faculty of feeling, which appears to have disappeared in the process of enlightened rationalisation, could still be observed: it still lingered somewhere in our legs. To firmly ground this faculty – as a counterpoint to materialists like Diderot and La Mettrie – he appealed to a special moral organ ('l'organe moral') that secured man's relationship to everything on the moral side of the universe. Although it is not clear whether Hemsterhuis locates this sixth sense in the human body, its function in his philosophy is certainly clear.[11] The moral organ opens up and makes possible the encounter of man with the whole world, and not just with a piece of it. Part of this moral organ needs to be recovered and restimulated, without it dominating our whole experience, as was the case in ancient Greek culture (which was, in his eyes, too oriented to the moral organ). The moral organ needs to be balanced by a Newtonian worldview. Both 'powers' should be held in harmony: they should entrain. Within this fragile balance, Hemsterhuis situates the work(ing) of art. Here the moral world and the world of matter meet in a very special way.

Letter on Sculpture

The *Letter on Sculpture* is a text that marks the beginning of a long series of philosophical writings on sculpture, and this is, in comparison with writings on painting, a relatively modern phenomenon. Although Diderot was closely involved with many sculptors (Falconet, Pigalle and Bouchardon, among others), this interest is diffused throughout his writings. Nowhere does sculpture form the central starting point for philosophical reflection. Of Hemsterhuis's philosophical contemporaries only J. G. Herder studied sculpture (and read Hemsterhuis intensively on the subject). In the nineteenth century, philosophical interest in sculpture came to the fore with Conrad Fiedler, among others, who studied Adolf von Hildebrand's art and theory. And it was not until the twentieth century that philosophical interest in sculpture really gained momentum – not least because sculpture changed dramatically: Georg Simmel analysed Rodin's sculpture, Sartre immersed himself in Giacometti's work, Merleau-Ponty studied the sculptures of Germaine Richier and Heidegger did the same with Chillida.

It is no surprise that Hemsterhuis turned to sculpture. Sculpture was increasingly regarded as an important, if not the most important, visual art in the eighteenth century. This emancipation was partly a result of a reorientation towards classical art, to which, for example, Winckelmann's G*eschichte der Kunst des Althertums* (1764) and Caylus's *Recueil d'antiquités* (1752–67) contributed enormously. The excavations at Pompeii and Herculaneum also played a stimulating role in the reactivation of a classical, sculptural past. And yet this does not fully explain the emergence of philosophical reflection on sculpture: only attending to Hemsterhuis's *Letter* provides the answers.

The Question

'Some time ago you imposed upon me the task of communicating to you my ideas on sculpture' (p. 60 below). This is how Hemsterhuis frames the motive for his letter, even though he quickly shows his independence from de Smeth's provocation. He begins his exposition with a general theory of beauty, for, he claims, it connects all the arts as well as all the sciences. The principles of this theory are well known: firstly, the imitation of nature, and secondly, the surpassing of nature by producing effects that nature is not capable of easily producing or that it is unable to produce. Although mimesis was already a very traditional topos, Hemsterhuis does something new by connecting it to new insights into optics and the psychology of the senses. The axiom with which he begins his analysis runs: 'it is owing to much practice and the assistance of all our senses at the same time [that] we have managed in some way to essentially distinguish objects from each other when employing only one of our senses' (p. 60 below). The mechanism by which we make these distinctions is explained by the principle of imitation and this is, in turn, explained optically. We can distinguish visual objects by (1) their clear contours, (2) the way their shape alters shadows and light, and (3) their colour, although the last is, in fact, merely derivative. Moreover, gradations in light and dark (point 2) are the result of an invisible profile of the object – that is, according to Hemsterhuis, a shadow is only the result of an invisible contour of 'the depth' of the object. Shadow can therefore also be reduced to contour (point 1). Hemsterhuis goes on to indicate next that imitation has limits. He demonstrates this idea by means of a few self-drawn illustrations (p. 61 below): in the figure he sketches (p. 61 below), the line segment *a*–*b* marks the boundary of shadow and light (or a certain degree of lightness or darkness) of the cone (*A*), but, at the same time, it also functions as the contour of that cone which is visible only from perspective *B*. He then shows how three different types of artist – the 'line' artist ('dessinateur au trait'), the painter and the sculptor – are able to imitate the cone. The line artist imitates the cone incompletely, because he can draw only a series of different geometrical shapes (a triangle, a circle and an ellipse) from the different viewpoints (*B*, *C* and *D*). He can depict these with a few lines. The painter, however, is able to do more, because, by depicting shadows, he gives the viewer the idea of a larger number of (non-visible) contours of the object. It follows from this increase in the number of contours that a perfect imitation of the cone requires an imitation of all contours. This is, however, possible only for the sculptor. Sculpture is an art form that can completely imitate a visual object, that is, as an object in space in which all possible perspectives (read: contours) are incorporated. It is an art form that does not need to make recourse to a 'shadow' like painting, and thus Hemsterhuis implicitly makes it the most enlightened of all the (visual) arts.[12]

Hemsterhuis's new approach to the concept of imitation is also discernible in his treatment of surpassing nature. His view of nature is opposed to those of his predecessors: unlike Dolce, Bellori and their many followers, Hemsterhuis does not define this idea of surpassing nature in terms of the imperfectness of nature.[13] Rather, for him, the work of art itself always falls short of perfection, as we shall see. Whereas the work of nature is perfect in itself (an autarchy), art never succeeds

in reaching its goal, viz. the satisfaction of man's desire to connect with the desired other or object (see the 'General remark' in the *Letter on Desires* [p. 86 below]). Nevertheless, of all material objects, the work of art is the closest *material thing* to man's desire for immaterial love.

To explain the ways that art surpasses nature, Hemsterhuis does something surprising: he does not begin by referring to exemplary works of art and deducing their hidden rules; rather, he concentrates on something that is missing in drawings made by children. Because of their inexperience in using all of their senses, children are incapable of seeing the whole, and sometimes linger too long on details. The application of the laws of optics to the structure of the eye shows, he says, 'that, in a single moment, we obtain a distinct idea of almost one single point alone, which is painted clearly on the retina' (p. 62 below). To have a clear idea of an object in its entirety, it is necessary to lead the axis of the eye along all the contours of the object, so that all the points that form part of the contour are sequentially marked out with the requisite clarity on the retina. The soul then connects these points together and, in the end, obtains a representation of the whole contour. Children are not yet capable of having a clear idea of an object in its entirety.

Hemsterhuis draws the following conclusion from the above, which is very important for the rest of his philosophy since it introduces for the first time the importance of time: 'Now, it is certain that this linking is an action in which the soul employs time, and more time if the eye is less exercised in traversing the objects' (p. 62 below). The soul needs time to properly connect all the points of an object's contour. This process is slower when the eye is less trained in probing the object. And it is in this way that Hemsterhuis explains the incorrect perception of a child: the child's eyes still move slowly and in a disorderly way along the contours of an object and regularly pause to attend to the most diverse things that obstruct them in their course. Hence, experience in looking and judging becomes key.

Since perception has a beginning, it also has a conclusion. In one of his later letters he discusses what a dying person sees – that is, a person for whom this synthesising capacity is gradually disappearing, such that sensory data dissolve back into an originary sequence:

> You can see that the organ [of sight] still has some force to render ideas in an isolated manner and one by one to the soul with sufficient clarity, but its action is so slow and so heavy that the soul cannot use them to bring the ideas together. (*B* 9.49)

Eyesight still manages to perceive individual things, but the inert soul can no longer bring all the ideas together. The same thing happens with the sense of taste, in which the coming-to-unity of successive sensations is not yet or no longer possible in children and the sick:

> With regard to taste. Offer to an extremely weakened man a sauce, e.g. composed of vinegar, sugar, biscuit and butter. In the first moment he feels only the horribly sour vinegar, the second only the horribly sweet sugar, the third the floury and tasteless biscuit and the fourth the butter as disgusting fat. In a state of health,

> he liked the sauce in its quality as a whole which the soul knew to compose by the lively action of the [taste] organ, but here, the sauce and its binding becomes impossible. (*B* 9.49)

What comes to the fore here is that the soul is a synthesising force. Just like Johannes Kepler and Hemsterhuis's close friend Petrus Camper, who wrote a doctoral thesis on vision, Hemsterhuis takes the points of light that make up the object's contour as the starting point for his analysis of vision.[14] But whereas Kepler and Camper remain satisfied with an account of the physical basis of perception, Hemsterhuis goes further and begins to include a psychological component as well. For the first time in the history of optical research, Hemsterhuis demonstrates the influence of the soul on perception by subjecting the points of perception to a visual, that is, to an aesthetic, experiment – an experiment in which the optical and psychological worlds are interconnected. This is a new encounter.

Affect and Vases: The Appearance of Time

Correct observation of objects and correct imitation of them require practice. A more important conclusion that follows from Hemsterhuis's analysis, however, is the relation he establishes between perception and succession. This is manifest in the experiment he carries out with two different large drawings. For this experiment, Hemsterhuis draws two vases alongside each other, both of which, although of roughly equal size, are completely different in execution, that is, in their composition and in their details (see p. 62 below). The engraving on the left (A) bears some resemblance to an ancient Greek vase: both the foot and the neck are decorated with different ornaments; more than half of the vase's body is reserved for a mythological representation, namely Hercules' ninth labour, in which he successfully fights Hippolyta. On the left is a handle with two attachments that (resembling foliage from a distance) merge into the head of a ram, whose eyes lie exactly in line with the axis of the vase. On the right side of the vase there is a spout composed of various vegetative elements. These flow from each other and grow wider towards the end. The representation is bound at the top and bottom by a band of fluting. The drawing is made without shading, but there is still the suggestion of a convex spatial form. The same is true for the representation that is on the body of the vase. On the right side there is a horse depicted in foreshortened form and, on the left, a warrior disappears from view. Around the outline of the vase, letters indicate certain points on the vase.

The other engraving (B) also shows a jug or vase, but this looks more like an object composed of heterogeneous elements. On the left-hand side, just like on the other vase, there is a handle made up of very different ornamental elements, but which are more abstract than those on the other vase. Its end consists of a bearded man's head, which is shown in profile and whose pronounced hook nose stands out. In later nineteenth-century prints of the *Letter on Sculpture*, this has been replaced by a friendly looking man. In contrast to the ram's head, his eyes are not in line with the axis of the vase. On the right-hand side of this vase, there is a pouring spout

consisting of three different elements. The lower element resembles the fluting of a column, the middle one is almost formless and the last one is a twisted shape that widens upwards. The foot, the neck and the upper and lower part of the body are decorated eclectically, such as with plant and flower motifs, meander and star shapes and geometric shapes. The middle of the body is reserved for a picture, which is narrower and less clearly separated from the ornaments around it than in the other vase. This depicts an expanse of water with sailing ships and a sun on the horizon to the right. Above this depiction, almost in the middle of a meander, a child's head is drawn – something we also see in Hemsterhuis's *Letter on Desires*. In this drawing, too, Hemsterhuis has not made use of shadows and, although some of the ornaments seem to move with the curve, the impression is nevertheless one of a flattened shape and not of a fluent contour as in the other vase. Here, too, letters have been marked around the vase. The two vases are very similar in structure: a vase with a handle and a spout, decorated with ornaments and a picture in the middle. However, the details are different everywhere. To put it another way: as an 'idea', the vases are the same, but in their concrete appearance they differ completely. When we compare them, the two drawings reveal their similarities and their differences at the same time.[15]

These drawings – included and minimised in the printed version of the *Letter on Sculpture* in the form of engravings on fold-out sheets of paper – were shown by Hemsterhuis to various people for comment. When asked which was the most beautiful, all answered without exception that they preferred the Greek vase. Hemsterhuis does not characterise his test subjects other than to say that one of them was 'someone of very good sense, but who did not even have a mediocre knowledge of the arts' (p. 63 below). We can deduce from this that the others knew at least something about art, but this individual seems to guarantee a kind of objectivity to the experiment, because he lacks any pre-existing artistic preference. To Hemsterhuis's question as to why he thought the Greek vase was the most beautiful, this man answered, after some thought, that he was more *affected* by vase A than by vase B (p. 63 below).

Hemsterhuis concludes that such an affective force is the result of the effect of the vases on the soul, and he subsequently divides this force into two elements: *intensity* and *duration* – concepts that will become crucial to his metaphysical theory. Intensity refers to the figures themselves as so-called visible quantities. In both vases this quantity is the same, he claims: the contours contain a certain quantity of visible points and they are supposed to be the same in both figures. From this he concludes the following:

> consequently, vase A acted with more velocity on the soul of this person than vase B – that is, he was able to link the visible points together in A in a smaller space of time than in B; or what comes back to the same: he obtained an idea of A as a whole more quickly than of B as a whole. (p. 63 below)

When the visual quantity (*intensity*) of both forms is equal, then the beauty that is experienced must relate to a difference in time (*duration*). Speed of perception and degree of being affected are thus related. The experience of beauty is, in other

words, the result of an action of an external object on the soul in such a way that the soul can transform the entire external object into an inner idea almost instantly. This experience is therefore *not only* the result of the properties of the object as such, but also the result of the operations of the soul. In other words, beauty presupposes an external object and its immediate, that is, simultaneous, inner representation. At that intersection where the object becomes an idea, the experience of beauty is born.

To illustrate the ways in which Hemsterhuis used such drawings, one example is worth noting. In 1779, he showed his drawings to a mathematics teacher, a certain Johann Campill, a Franciscan lector from Marienfelt (*B* 2.47). Campill expressed a preference for vase B, instead of the Greek one. Hemsterhuis considered this to be an erroneous judgement stemming from Campill's inability to see the whole of a work of art. His soul had added up all the parts but did not see them as inextricably linked. Had that been the case, he would have preferred the Greek vase (because its parts form one whole). Campill's preference for heterogeneity is therefore a sign of love for the baroque: something is more beautiful to him the more baroque it is.[16] At the end of the letter in which he relates this story, Hemsterhuis will more or less revoke this claim and instead insist that Campill does have excellent judgement and so something must be wrong with his eyes. Although this sounds rather comical, it shows that Hemsterhuis assumes that a normally functioning human being (and certainly a mathematician) should necessarily prefer the Greek vase, not because it is Greek but because it represents the whole ('total') that makes experience of the beautiful possible. However, when Hemsterhuis took Campill to the Stadholder's cabinet the next day to show him various antique and modern gems, Campill appeared to express the correct preference ever more quickly. In other words, his lack of experience in viewing and comparing art was trained into correct judgement through practice. And so there was presumably nothing wrong with his eyes! Hemsterhuis now blames the problematic cultural climate in which Campill had grown up for his earlier erroneous judgement.

This example shows a few things: (1) that *counting* visual points is not what is at stake here, (2) that, rather, it is a matter of the soul composing a whole, and (3) that culture can affect judgement. Without going into further detail here, Hemsterhuis's philosophical description of Fagel provides some sense of how he imagined the real connoisseur:

> Regarding the fine arts, it appeared that nature had exempted him from all study. His tact was so fine, his taste so exquisite, and the rapidity with which he embraced a whole was so great that, in a moment, he reached a judgment which he never would take back; whereas great connoisseurs, with just as much taste, are often forced to rescind their judgements for lack of this velocity in linking together parts: they see in an object what composes it, he saw what it is. (p. 139 below)

The fact that Hemsterhuis mentions time as a decisive factor in aesthetic experience is most evident in the definition of beauty which immediately follows from his experiment. It reads as follows: 'Does it not follow, Sir, in a rather geometrical manner, that the soul judges as the most beautiful what it can form an idea of in

the smallest space of time?' (p. 63 below). Hemsterhuis immediately adds that this would imply, however, that a single black dot on a white surface would be preferable to much richer compositions or groups. The preference for a single dot, he adds, might be possible for someone who is severely weakened by illness and who would rather look at a dot than at a group, and so he concludes: 'it is the indolence of his organs which causes this judgement. A healthy, tranquil soul, in a well-constituted body, will choose the composition, because it gives him a larger number of ideas at the same time' (p. 63 below). That is, the soul does not merely wish to receive ideas in the shortest time possible, but it also desires to have a lot of ideas at the same time. Time and intensity belong together. And so Hemsterhuis's final definition reads as follows:

> We have seen that the beautiful in all arts must give us the greatest possible number of ideas in the smallest possible space of time. (p. 65 below)

Geometry, Spinoza

From the perspective of the early twenty-first century, Hemsterhuis's visual experiment might look fairly rudimentary – and this is indeed both its strength and its weakness, because it makes clear the extent to which the (epistemology of the) experimental sciences over the last three centuries were created from nothing and the extent to which their geometrical methods increasingly became a norm for scientific validity, that is, countability. Hemsterhuis's phrase 'in a rather geometrical manner' can also be seen as a nod to the subtitle of Spinoza's *Ethics* (*Ethica, ordine geometrico demonstrata*). We have already seen that Hemsterhuis opposed Spinoza's starting point, but his *Letter on Sculpture* and his *Letter on Desires* were also intended to convert de Smeth away from his sympathy for Spinozan monism.[17] In that sense, the *Letter on Sculpture* can be read as an aesthetic refutation of Spinoza. That both philosophers, as I have observed elsewhere, became very important reference points for German Idealisms and Romanticisms makes this controversy even more interesting.[18]

Hemsterhuis's rejection of Spinoza on aesthetic grounds has been traditionally ignored in the scholarship. It had been assumed that Hemsterhuis started dealing with Spinoza only during the 1770s, in his *Letter on Fatalism*. It also sheds a different light on Hemsterhuis's aesthetic theory. God and matter are two different things; man seeks and longs for union with God and things but will never ultimately succeed. And to demonstrate this, Hemsterhuis made use of his self-drawn vases: these works of art are exemplary in making manifest our desires, as well as making manifest how our desires fail – as we shall see.

Vases, Abstraction and the Modern Idea of Art

Vases? Yes, and why not geometrical forms? Such comparative exercises had become frequent in eighteenth-century art theories. Diderot's well known article

in the *Encyclopédie*, 'Beau', discusses several art theories from antiquity, Francis Hutcheson compares the beauty of squares, ellipses, rectangles, pentagons (and so on), and the triangle is considered less beautiful than the square, and so on. In the *Letter on Sculpture* itself we search in vain for an explanation of Hemsterhuis's use of these vases – which are works of art, but also not works of art. Fourteen years after its publication, however, we do find an answer in a letter to Gallitzin in which Hemsterhuis explains just how fundamental the vase experiment was:

> Just as the first geometrician has considered a square or a triangle the simplest object that makes the perception of bare truths possible in order to lead men to the knowledge of hidden and more complicated truth and even to the truth itself, we should consider the vases as the simplest object that makes the feeling of bare beauty possible in order to lead in this way to the knowledge of hidden and more complicated beauties and even to the beautiful itself. (*B* 4.68)

The relation between beauty and truth then arises:

> I believe … that we will find that the beautiful and the truth are much more closely related family members than we have ever believed, and what would one say when we someday prove not by poetic and figurative twaddle but strictly in the Euclidean way, that these two charming creatures are just one and the same adorable daughter under two different names? I bet on my life that before the moon she had only one name and perhaps that of essence. (*B* 4.68)

Before the earth was put in disorder by the arrival of the moon – the cosmological Fall of *Alexis* – truth and beauty were not separate. The true and the beautiful are thus derivative of an original unity. Hemsterhuis does not judge them hierarchically, but juxtaposes them, as different ways in which the (original) essence becomes experienceable to man.

By placing geometrical forms alongside his vases, Hemsterhuis indicates that they are not the same, but have analogous meanings in different domains. Since his vases represent the most basic forms of beauty possible, this implies – and this is remarkable and very important – that works of art alone occasion the experience of beauty. Hemsterhuis excludes nature as such from being a source of beauty. Beauty cannot be reduced any further than to these vase forms, and the vases cannot themselves be traced back to specific geometric figures.

This is the very reason that Hemsterhuis felt compelled to design these unusually complicated forms. And things are even more complex, since we have to consider the drawings not only as vases, but also as abstract forms constituted out of points. Abstractions are removed from representation, or, rather, they abandon any illusion of representation. In this way, Hemsterhuis separates two domains previously considered inseparable: the line as an autonomous entity and the line as an illusion or representation of something. This makes possible a split between form and content that would prove necessary for the advent of the modern idea of art, in which the relation between content and form was no longer guaranteed but always to be sought.

The impossibility of representing the essence of beauty by means of geometric forms does not mean that beauty cannot be analysed in a geometrical way. In one of his letters to Gallitzin, Hemsterhuis describes geometry as follows:

> Geometry is not the queen of the sciences because she teaches some properties of certain limits of space, but she is really their queen for her progress and her movements are indestructible laws that all others must follow: she is the elite soldier, the wing man who is placed at the wing of a battalion. (*B* 2.33)

Geometry's value is systematic. It is not particularly worthwhile as theory, but must instead be enacted in practice, and, in fact, geometry is ultimately derived from such practice:

> It is obvious … my Diotima, that geometry is nothing in herself and that she resembles the light which is in itself only light, but which when throwing its rays on the universe that surrounds it manifests it, finishes it, colours it, invigorates it, and a science, an art, a virtue, a good deed is only science, art, virtue and good deed in proportion to the number of geometrical rays they reflect. (*B* 2.47)

In other words, geometry serves to explain a certain feeling (in this case, beauty), but does not coincide with it. It gives insight into the working of beauty but does not constitute its ground.[19]

Hemsterhuis's remark about the geometric proof of his definition of beauty could, however, also be connected to Winckelmann's remark in his 1764 *Geschichte*: beauty is the highest goal of art, but at the same time one of nature's best-kept secrets. Beauty's essence is still unknown, although we all experience its effects. However, if the concept of beauty were to become geometrically clear, he observes, people's opinions would not differ, and it would be easy to convince someone of true beauty. Hemsterhuis's geometric approach to beauty may well have been an answer to Winckelmann's worry, although it is highly unlikely that he knew the *Geschichte* at first-hand when he was writing the *Letter*.[20] What nevertheless becomes clear is that both authors were interested in a precise, cogent concept of beauty, in which the work of art is central. This stands in contrast to the German aesthetics of the time, in which these elements are much less prominent. Winckelmann's claim is remarkable, since a large number of German philosophers, from Baumgarten and Wolff to Mendelssohn and Meier, placed measurability and number at the very basis of beauty. In other words, they approached beauty in a purely mathematical way. They all built on Leibniz's idea that music, for example, was in fact 'an unconscious mathematical exercise of the soul'. Like Winckelmann, however, Hemsterhuis remains far from this kind of 'quantitative Logismus', as Reichmann described it; he instead tries to render intuitive experience comprehensible by means of geometry, without making it the basis of the experience.[21]

His difference from German aesthetics is further demonstrated by Moses Mendelssohn's review of the *Letter on Sculpture*, in which he interrogates Hemsterhuis's definition of beauty. This definition – which Mendelssohn in fact endorsed in his principle of unity in diversity – could, to his mind, really be valid only if the

necessary amount of time were fixed, because time, he claims, has a fixed number. He thus translated Hemsterhuis's definition into the following algebraic formula: S = K/T, that is, beauty is quantity divided by time. According to Mendelssohn, however, beauty cannot be proportional to quantity and inversely proportional to time. But, of course, Mendelssohn's misunderstanding of Hemsterhuis is to be located in this insistence on fixing time, that is, making it a constant, whereas Hemsterhuis understands both quantity and time as variables. This is evident from the *Letter on Desires*, in which he makes clear that beauty is based on man's metaphysical desire to eliminate (empirical) time. Man strives to merge into eternal duration (*durée*). However, this aspiration is hindered by our senses, which are our access routes to reality but which, at the same time, limit us. This is the fundamental desire on which man's striving for the dissolution of time is based. And it is precisely this mechanism that Hemsterhuis tries to render visible through his aesthetic experiment. That is, good works of art supply mankind with a concentration of ideas that nature can never bring about. And this is why there are various quantities of beauty directly proportional to the speed with which they can be experienced. And this is why time is not fixed but variable: the highest beauty would imply the complete dissolution of time.

Works of art thus appear as the sole material witnesses to this metaphysical desire. In the experience of works of art, the true nature of man manifests itself, and so they are ideally suited to the role of visualising it. In the *Letter on Sculpture*, Hemsterhuis will subsequently introduce the terms 'minimum', 'maximum' and 'optimum' to describe these interrelationships. They are also used to describe the relation between passions in a sculpture and their influence on the fluid outline: passions can sometimes interrupt the fluency of a form, so a sculptor should look for balance. Hemsterhuis ultimately prefers the so-called *figura serpentinata*, which, from all sides, shows as many ideas as possible in the shortest amount of time (Giambologna).[22]

Experimental Method: Newton, 's Gravesande, Truth and Artistic Research

Hemsterhuis's rudimentary experiments on (aesthetic) perception anticipate the kind of disinterested experimental objectivity central to later theorists. He presents one particular individual as an unbiased observer who can serve to guarantee the objectivity of the experiment. In other words, he attempts to separate aesthetic preference from knowledge of art. This experiment is further characterised by the fact that it is shared publicly, for he included the vase drawings as fold-out sheets in the book, so that it could be repeated by everyone. Furthermore, it possesses general validity because he questioned both laymen and connoisseurs. Methodologically speaking, the experiment therefore displays many points in common with contemporaneous uses of experiments in the natural sciences. Indeed, the value Hemsterhuis attributes to experimental proofs has its source in the development of natural science in the Netherlands over the previous century. The use of the experimental method in science was introduced to the Dutch Republic by the

Leiden professor Burchardus de Volder in 1675. He was one of the first on the European continent to make use of experiments in his lectures, although only as a means of illustration and not yet as a starting point for research. The importance of the experiment in university education, however, was dramatically emphasised by Boerhaave and 's Gravesande. The latter was a convinced Newtonian and was the first in continental Europe to systematise Newton's ideas, making them more accessible to a wide audience. This made him famous throughout Europe, and Voltaire, among others, attended his lectures. Hemsterhuis also attended lectures in Leiden from 1740 onwards.

In Dutch Newtonianism, observations and experiments constituted the basis of our knowledge of nature. However, this did not imply that the inductive method guaranteed absolute certainty in natural science; the certainty of Cartesian science was still lacking. Newton himself recognised this and it was 's Gravesande who worked out this problem most rigorously. In so doing, he rejected Descartes's idea that sensory perception is unreliable, as well as his hypothetical-deductive method of studying nature. Instead, 's Gravesande avers that sensory perception is completely reliable by defining certainty ('evidentia') as immediate perception. Furthermore, according to 's Gravesande, we can judge external objects in three different ways: with the help of the senses, by means of the testimony of others and through reasoning by analogy. Our senses focus on things that are happening now, but for those things that happened earlier or elsewhere we rely on others. However, if there is no basis for our judgement in the past, we must reason by analogy (it is reasonable to think that the sun will rise again tomorrow). Common to all these judgements is that none of them is necessary, that is, logically true, because the opposite is still imaginable (the sun does not have to rise, after all). 's Gravesande solves this problem by returning to the eternal, omniscient and almighty God, who is perfectly good and who, as perfectly good, is also good to man. God has given us all kinds of means for our existence and it would not be consistent with His goodness if those means were not reliable. This led to 's Gravesande's 'survival axiom': without the senses, without the testimony of others and without analogy, life on earth would not be possible. This allows us to say with certainty, for example, that a body is extended (through the senses), that the sun will rise (through analogy), and that Rome is in Italy (through testimony). 's Gravesande called this evidence a moral proof: he was well aware that each of these three is not necessarily reliable in itself, but the moral proof does still have the same degree of certainty as any mathematical one. And, in this way, he grounded the empirical science of the eighteenth century.

When we return to Hemsterhuis's vase experiment, in which he expressly asks for opinions on visible and external data, he seems to be attempting to gain certainty through the first means (the senses). After all, the experiment can be repeated in the presence of the objects and be tested to corroborate its results each time. That is, Hemsterhuis attempts to empirically substantiate a judgement on a work of art and this brings the experiment into the domain of moral evidence. Methodologically, Hemsterhuis follows 's Gravesande, but not for the purpose of a science of nature – rather, for a science of art and psychology (strictly speaking, the vases do not belong to the domain of natural history, because they are works of art). Hemsterhuis's remark at the beginning of the *Letter on Sculpture* that the arts and sciences can be

traced back to the same source (p. 60 below) enables him, moreover, to draw a parallel between the two domains in advance – and this is emphasised in a note written more than ten years later:

> Each science … has experience as its sole and unique basis; and it is the purity and the truth of real experiments, which determines the value of the science or theory that may be born of it. An experiment taken at random, not simplified, not free from all that is heterogeneous to it, inevitably leads us into error, and such multiplied experiments lead directly to the fantastic, and finally into a labyrinth from which it takes entire centuries to emerge. (*B* 1.50)

Abstractly speaking, Hemsterhuis undertakes his experiments objectively, that is, by approaching them in the same way as the natural historian does nature. The work of art becomes, as it were, an experiment for and of itself. Moreover – and this is perhaps the most important point – such an approach reveals another element lacking in natural objects: the determinative presence of the viewer. The viewer's soul is affected by the work of art and it is the workings of the soul that are made visible and comprehensible by and in the experiment.

Hemsterhuis thus uses Baconian and Newtonian induction to investigate the human spirit. By means of the experiment, points of light are linked to the soul – the two domains are brought into contact. He is the first to undertake this kind of aesthetic experiment which, in the nineteenth century, is to be found in the works of Gustav Fechner (psychophysics) and in the twentieth century in George Birkhoff's writings (e.g. *Aesthetic Measure*). Fechner's treatment of meaningless forms is surprisingly similar to Hemsterhuis's concept of 'visible quantities', and Birkhoff – who directly refers to Hemsterhuis's definition of the beautiful – develops an almost identical formula for beauty.

My earlier remarks concerning the relevance of Hemsterhuis's approach to art, experiment and research for contemporary art-research practices (which are articulated almost always without reference to Hemsterhuis[23]) has now been substantiated: his drawings are not an illustration of a theory, but are themselves theory – that is, they form the basis of a perceptual experiment from which he deduced his ideas on art and beauty. In short: practice is theory and vice versa.

Experiment, Beauty and Disgust: The Prelude to the *Letter on Desires*

Before turning to the *Letter on Desires*, it is necessary to mention one other aesthetic experiment. For Hemsterhuis closes his *Letter on Sculpture* by concentrating on an experiment – which readers are meant to perform themselves – that makes another feature of beauty visible: beauty is not a matter of nature but of man. The experiment goes as follows. Put a sculpture of a group of figures or a vase that is as ugly as possible next to similar objects that display all the principles of beauty; observe them daily for several hours in a row and from all sides; and the result will be the following:

> The first effect of this painful experience will be disgust; but when we wish to compare these two objects once more, we shall be amazed to see that our sensitivity to the difference in their degrees of beauty will be extremely diminished, and will even appear to have changed in nature: we will find ourselves somehow indecisive in the choice to be made between these two objects, which, nevertheless, in fact differ completely from each other. (p. 67 below)

This odd experiment leads not only to a feeling of aversion, but also to the realisation that each work's degree of beauty is substantially reduced and even changed in nature over the course of the experiment. At the end of it, no one can choose between the two any longer, even though the objects are in fact completely different. The reason for this 'blocked' judgement is that, during the experiment, the eye becomes so skilled at moving along the contours of the poorly composed work that the time it takes almost equals the time required to obtain a clear idea of the beautiful object. The converse also occurs: since the eye passes over the beautiful object so often, it discovers 'every nook and cranny over which it had glided with ease at first sight but which now impede its path' (p. 67 below). Such an experiment can be undertaken in all the arts, he adds.

Hemsterhuis concludes this passage with the observation that nature has taught us to know things and that habit has taught us to distinguish them. However, the idea of something's beauty is just a necessary consequence of the 'singular property of the soul which I have just demonstrated' (p. 67 below). Something in our souls has an aversion to anything that has to do with succession or duration.

The *Letter on Desires*: Spinoza Again

> In the Letter which I had the honour to address to you on Sculpture some time ago, I promised to write to you concerning a property of the soul, which, after long contemplation of a desired object, gives birth to disgust. (p. 79 below)

Disgust forms the starting point for this intriguing letter, which Hemsterhuis rightly considered inseparable from the *Letter on Sculpture* (*B* 3.103). He continues, 'I think I have proven to you in my preceding [letter] that the soul always seeks the greatest possible number of ideas in the smallest possible space of time, and that what prevents it from being satisfied in this respect lies in the necessity by which it is compelled to use organs and media, and to act by way of a succession of time and parts' (p. 79 below). It is this idea that now leads him to view desire for beauty as a desire for material things and thus to view it as a lower form of human desire. All possible expressions of desire are based on the one fundamental desire that consists in the human's constant striving to unite with the desired object. Hemsterhuis distinguishes two ways in which the human can so unite herself: a physical one and a spiritual one. The first is considered low because he considers coitus to be a non-essential and always illusory union. Spiritual union, on the other hand, which manifests itself in friendship and in love for the deity, is purely immaterial and therefore preferable to the physical. On a spiritual level, the union of two beings is,

in principle, possible, and the culmination of a spiritual union in which any sexual temptation is absent is called in his letters a 'marriage in friendship' (*B* 1.40).[24]

Assuming that the time it takes for the soul to acquire ideas from an object is zero, he continues, this means that the soul is either as far away from the whole of it or as close to it as possible. Moreover, if the number of ideas that the soul can acquire from a single object were infinite, within this infinity, which consists of all the inner and outer relations of the object, there also resides the idea of its existence. This means that the soul would therefore be intimately united with the object and would form a whole with it, without any duality. At this point, Hemsterhuis adds:

> But, it will be said, if a thinking being, by the very fact that it has clear ideas of the object's every internal and external relation, and, among these ideas, those of its own existence, is perfectly and intimately connected to the object, it follows that God, who has the ideas of objects in a manner as perfectly intuitive as we are supposing here, will be identified with [these] objects – and this is absurd. (p. 87 below)

This is again a response to Spinozian monism:

> I may remark that the absurdity of the identification of God with the object resides precisely in the impossibility or the manifest contradiction to be found in an identification of the one who makes and who preserves with what he made and conserved. (p. 87 below)

He continues by adding a geometrical comparison:

> It will, however, be clear that the soul in its desires tends by its nature towards this union, or it desires a continual approximation. This is the hyperbole with its asymptote: and such is all I wished to demonstrate in this investigation of the nature of desires. (p. 87 below)

In one of his letters, he had concluded, as noted earlier: 'For [Spinoza], divinity is identified with the universe and for me the distance between the two is infinite'.

If the soul longs for perfect and intimate union with everything outside of it, then its attractive force is constant and it longs perpetually. Hemsterhuis appeals at this juncture to the Aristophanes of Plato's *Symposium*. The types of objects that the soul can long for are either equal or unequal to the essence of the soul. The liveliness of desires, or, rather, their degree of attraction – which we should read as the moral equivalent to Newton's law of attraction – is determined by how similar the desired object is, which, in turn, determines the extent to which perfect union is possible. Within the totality of desires, the work of art ultimately plays the following role:

> For example, one will love a beautiful statue less than one's friend, one's friend less than one's mistress, and one's mistress less than the Supreme Being. It is because of this that religion makes greater enthusiasts than love, love more than friendship, and friendship more than desire for purely material things.

> When I contemplate some beautiful thing, e.g. a beautiful statue, I actually search solely to unite my being, my essence, with this being so heterogeneous [to me]; but after numerous contemplations I feel myself disgusted with the statue, and this disgust arises solely from the tacit reflection I make on the impossibility of a perfect union. (p. 80 below)

The more materiality exhibited by the desired object, the quicker a feeling of aversion will arise, and this stems from the awareness that complete fusion with the object is impossible.[25] Hemsterhuis goes on to describe how the sexual drive is primarily present in all human desires, and he refers to 'the singular correspondence that exists between the generative parts and our ideas; how much certain ideas cause changes in these parts, and how quickly a contrary change in these parts makes such ideas vanish' (p. 82 below). At the same time, Hemsterhuis is keen to keep the soul away from union with essences. In *Simon*, he composes a story that tells of the erotic origin of all the arts and which seems to demonstrate that the old idea that the arts were founded on imitation has now been transformed into a common grounding of the arts in desire. Art, or the poetic faculty, is founded on an inner urge (and it could in this way go on to become the site of the – modern – battle between feeling and reason).[26]

The second means of uniting the soul with a desired object is the spiritual. And Hemsterhuis illustrates its operation with examples from daily practice. He describes how encounters between people take place, how friendships can arise, how one experiences attraction to certain persons and how we try to make each other 'more similar' in conversations. The second remedy, he summarises briefly, 'consists in making the desired object more homogeneous, and in making it more perceptible to us from a greater number of viewpoints – that is, in increasing the possibility of the desired union' (p. 83 below). This newly opened-up world of desires, feelings and art became an important *Fundgrube* for the German Idealists and (pre-)Romantics. Art comes to be recognised as a force in its own right, feeling comes to be the intuitive creative force par excellence and the study of man and his relations will set off on a trajectory that will lead in the twenty-first century to man becoming only one of many possible relations in the world.

Theory and Practices: Art in Society

Hemsterhuis's aesthetics (although he never uses the term) is a collection of ideas grounded in diverse practices: the practices of daily life, the practices of looking at works of art, the practices of aesthetic appreciation, the practices of civic life – in short, the practices of all our desires as they are active in all human operations. Positioning the work of art right at the centre of an examination of the workings of the human soul within the material world renders art into an important stepping-stone for approaching a full understanding of the world in all its appearances. The work of art, which is the only material entity capable of producing beauty, shows that the human is entangled with the world, and this gives rise to Hemsterhuis's next book, *Letter on Man and his Relations*, which acts as a philosophical guide to becoming

a citizen and leader. Hemsterhuis's new worldview is for the most part aesthetically grounded. This is also apparent in his advice to Franz von Fürstenberg – who was at the time reforming the whole educational system in Münster – to establish an art academy, since the arts are needed in society:

> All that I remember saying reasonably in my letter was that you [Gallitzin] need schools for the Arts [in Münster]. I knew very well why the Gr[and]. H[omme][27] has so far put aside everything that is not of direct and real use, but I believe that now (since the arts are necessary in society) it is time to draw them from nature and accept them virgin and still pure from [nature's] sacred hand, rather than to receive them by force from the hands of luxury, bundled up into brilliant courtesans where there is nothing divine anymore. In Athens the arts came before luxury and, when they came, they deigned to educate and ennoble it. In our time luxury is the father of the arts: petty children who often grimace at Nature, the mother of everything. (*B* 6.68)

Just like philosophy, the arts, too, are (and should be) founded on that simple ground which man also stands on, not on anything more.

Man in General and *Fagel* in Particular

Jacob van Sluis

The *Letter on Man* is the most extensive work Hemsterhuis published during his lifetime. In its original form, published in French in 1772, it contains approximately 22,000 words. Its design and aim are very ambitious, and perhaps the way it is set out and its final form do not quite satisfactorily realise them. It is for this reason that this introduction is devoted not just to the structure of the *Letter on Man* in particular, but also to Hemsterhuis's working methods in general.

The Line of Enquiry

To begin, it is worth remarking on the full title: *Letter on Man and his Relations*. Hemsterhuis customarily gives his publications concise titles that indicate the theme to be discussed, and, in the case of the dialogues, this is preceded by the personal name of the junior conversation partner. The topic under discussion is usually limited, for example to a particular antique stone, human desires, or the divinity. However, the *Letter on Man* is a relative exception to this rule because the subject matter announced in the title suggests a grand, even all-encompassing line of enquiry – that is, it will survey the human being in all its relations, even relations that exceed the human's own capacities. What is announced in the title is a major philosophical programme that is all-embracing and will even include digressions on patriotism and the history of religious cults.

The history of early modern Western philosophy has aptly been described by Richard Popkin as a *crise pyrrhonienne*.[1] This philosophical crisis was created by a sceptical interpretation of the possibilities of human knowledge within both the Renaissance and the Reformation. The Renaissance's revaluation of the ancient culture of the Greeks and Romans included the rediscovery of the works of the Greek sceptic Sextus Empiricus (c. 200 AD). The Reformation saw theologians in both the Roman Catholic and Protestant traditions argue over the capacity of the human mind to recognise God's revelation, either through the indispensable support of divine grace or on its own. Within philosophy – as *ancilla theologiae* – epistemology thus became central and was framed as subject to one sceptical question above all: how can man acquire reliable knowledge? In the early modern period, many philosophers focused on precisely this question: Descartes in his *Discours de la méthode* and *Principia philosophiae*, Gassendi in his *Exercitationes paradoxicae*, Locke in *An Essay Concerning Human Understanding*, Hume in *An Enquiry Concerning Human Understanding*, and Kant in the *Kritik der reinen Vernunft* – to name but a few of the most important. Spinoza, however, rejected the sceptical route and contended, instead, that a pure idea of God – strictly philosophically formulated and very

different from the biblical God – was possible, and this God is not a deceiver but the guarantor that clear and distinct ideas are true. Those less renowned philosophers who took their orientation from theology chose the existence of God or His revelation as the anchor point for further systematic thinking. Others took a pragmatic position: Hemsterhuis's teacher, the Leiden professor 's Gravesande, distinguished between degrees of certainty – evident mathematical certainty that provides absolute evidence, compared with a moral certainty that provides a lower degree of evidence, being more suited to practical situations. And yet, the problems arising from the sceptical tradition were still live issues for Hemsterhuis's generation. His friend and fellow student in the early Leiden years, Petrus Camper, implicitly referred to them in his inauguration as Professor of Philosophy at the University of Franeker in 1750.[2] It is therefore remarkable that, in the *Letter on Man*, Hemsterhuis utterly ignores the *crise pyrrhonienne*. He takes it for granted that the sensory organs transmit reliable sensations of the outside world to the mind. Thus, it is not epistemology, but the human being as an actor which constitutes Hemsterhuis's explicit starting point. In choosing the human being as the place to begin, he was neither unique nor original. Alexander Pope had already insisted on the anthropocentric perspective in *An Essay on Man*, La Mettrie had written his *L'Homme machine* from a materialist perspective, and Helvétius's *L'Homme, de ses facultés intellectuelles et de son éducation* was published posthumously in the same year as Hemsterhuis's *Letter on Man* (1772). One question that arises from this is the extent to which this shift within early modern philosophy from epistemology to anthropology – that Hemsterhuis, among others, made – is the same as that major cultural-historical shift at the period identified by Foucault. According to Foucault, between the late eighteenth and the early nineteenth century, there was a shift in the intellectual paradigm from the post-Renaissance classical *episteme* to a modern one, in which man was not only spoken about but also became a subject of epistemological awareness and self-reflection – that is, this transition witnessed the emergence of man as 'an empirical-transcendental doublet'.[3] Some passages from *Letter on Man* could well be interpreted within the framework of this modern turn – as, perhaps, an early progenitor of it (e.g. pp. 89–94 below). While we do not need to precisely locate Hemsterhuis's position in Foucault's narrative or in Popkin's scheme of Pyrrhonism, what we have established is that his philosophical programme in *Letter on Man* is both anthropocentric and confident. However, in stark contrast to this ambitious and all-embracing content is its presentation in the form of a simple letter which is apparently written by one private individual to another. It is to this aspect of the text I now turn.

Stepping Back into Anonymity

The *Letter on an Antique Gemstone* (1762) and the *Letter on Sculpture* (dated 1765, published 1769) had a clear addressee, Theodorus de Smeth, and this was stated on the title page. It also had a sender, who provided his initial and surname: 'F. Hemsterhuis'. In the *Letter on Desires* (1770) that followed, both names are indicated by initials alone: T.D.S. on the title page and H.L.F. as the signatory

(as shorthand for Hemsterhuis le Fils, to distinguish him from his father, Tiberius Hemsterhuis, who was much more famous at the time). The *Letter on Man* goes one step further. It is written as a letter addressed to a 'Monsieur', whose name is not mentioned, and likewise any indication of the name of the sender or author of this letter is also missing. Likewise, the *Philosophical Description of … Fagel* (1773) does not mention an author and the three dialogues later published with Hemsterhuis's permission, *Sophylus* (1778), *Aristaeus* (1779) and *Alexis* (1787), are also completely anonymous.

It is clear from this that Hemsterhuis gradually withdrew into the background as an author. While he began with personal letters addressed to a named addressee and signed with his own name, by the end he was writing anonymous dialogues, supposedly originating from ancient Greece. The *Letter on Man* stands in the middle. And yet it was an open secret to his contemporaries that Hemsterhuis was the author of all these publications. He was not shy of sending his publications to all his friends and interested parties; indeed, he created mailing lists for the purpose. Explicit secrecy was therefore not at all his intention and, of course, it would have been out of place to give the author's name on dialogues that claimed ancient Greek provenance.

The main reason for Hemsterhuis's increasing anonymity seems to me to be a kind of gentlemanly modesty and an expression of social status. Although Hemsterhuis's family was not of noble origin, he nonetheless ascribed to an aristocratic spirit in his artisanship. Take, for example, the diplomat Unico Wilhelm, Count of Wassenaer Obdam (1692–1766), an amateur composer who published his *Concerti Armonici* anonymously; by a twist of fate, these concertos were subsequently attributed to Pergolesi – a hallmark of their quality and quite a compliment for their composer. As this example might suggest, anonymity was sometimes deployed when there was no claim to professionalism in a skill. Hemsterhuis published his books out of his own pocket and had a secretary undertake the executive tasks. He did not need to take into account the commercial interests of a publisher or a bookseller, and he controlled the distribution himself. As a result, mentioning his name in the work as author served no purpose; he did not need to step into the foreground. Moreover, Hemsterhuis pushed this tendency to gradual withdrawal into anonymity to the extent of involving his interlocutors, who, as we will see, also had no interest in making themselves known.

The Need for an Interlocutor

The three letters that preceded *Letter on Man* were addressed to Theodorus de Smeth (1710–72), a rich merchant, banker and member of Amsterdam City Council. De Smeth shared Hemsterhuis's interest in antique gems and this prompted him to ask Hemsterhuis's advice on a specific gemstone, resulting in the *Letter on an Antique Gemstone*. Hemsterhuis could well have acquired this specialist knowledge as a young boy from the collection of Jacob de Wilde (1645–1721), his maternal grandfather.[4] De Wilde owned a large collection of antique coins and carved stones, which he managed as a private museum in his house on the Keizersgracht in Amsterdam.

Visitors came from afar, including Tsar Peter the Great in 1697. After de Wilde's death, the collection remained in the family until it was sold in 1741. It is out of this shared interest that Hemsterhuis and de Smeth became acquainted and, after the *Letter on an Antique Gemstone*, two more letters dedicated to de Smeth followed. And this, at the very least, gives the impression that de Smeth had been acting as a discussion partner, stimulating Hemsterhuis to articulate and publish his ideas. In other words, Hemsterhuis always seemed to need an interlocutor both to express his ideas and then to publish them. After de Smeth died, Gallitzin would take over this role.

Just like the three earlier letters, the *Letter on Man* also contained a signature, including a place and date of composition, although excluding the author's name. It is dated 9 January 1772 and was published early in the summer of 1772. A review appeared as early as September that year.[5] Much later, in 1786, Hemsterhuis noted, presumably mistakenly, that to his regret the book had been published a few days too late for de Smeth, who died on 17 November (*B* 7.68, annex). As discussed above, unlike in the three earlier letters, the addressee of *Letter on Man* remained anonymous, although it still reads as a conventional letter addressed to a 'Monsieur'. An extant autograph manuscript of the *Letter on Man* (i.e. one written by Hemsterhuis himself) is dedicated explicitly to his young friend François Fagel (1740–73).[6] Its first page reads like a title page: 'Lettre sur l'homme & ses rapports à Monsieur François Fagel, greffier de Leurs Hautes Puissances des Etats Generaux des Provinces Unies' (Letter on man and his relations to Mr. François Fagel, clerk of Their High Powers of the States General of the United Provinces). All this is lacking in the printed publication, although Hemsterhuis did later add it to the title page of a printed copy personally presented to Diderot for comment. Had Fagel been the discussion partner for *Letter on Man*? It seems so, for Hemsterhuis wrote much later in a letter to Gallitzin that he had written it 'to satisfy my late friend Fagel, … who wished for a small course of philosophy' (*B* 7.30). Nevertheless, this remark might still be interpreted minimally – with Fagel merely a passive recipient. Did Fagel request a less visible bit part, as befits *un honnête homme* (see below)? Had de Smeth actually been the interlocutor, with Fagel merely an interested party who asked for a report (i.e. 'a small course of philosophy')? At any rate, this reference to Fagel in some manuscripts but not in the *editio princeps* is puzzling, and the insistence on Fagel's central role in later editions of Hemsterhuis's *Oeuvres* surprising.

Unlike de Smeth (at least in Hemsterhuis's 1786 telling of the story), Fagel did live to see the publication of *Letter on Man*. However, he died the following year, on 28 August 1773 in The Hague. This must have been a shock to Hemsterhuis, and he commemorated Fagel in a short pamphlet published the same year: *Philosophical Description of the Character of the Late Mr. F. Fagel*. It is obviously written out of great esteem for his deceased friend, with sincerity and passion – and, although the description is somewhat idealised, it does not become sentimental at any point. It is written spontaneously, as if Hemsterhuis were speaking in the presence of Fagel without waiting for his reaction.

The encounter with Gallitzin in 1775 led to a new phase in Hemsterhuis's personal life and his publications. She became his muse, but with greater personal

input than either de Smeth or Fagel had before 1775. She did not passively wait for letters to instruct her but entered actively into dialogue with Hemsterhuis. Their conversations resulted in four dialogues based on the example of Plato (the contents of volume 2 of the Edinburgh Edition). In short, all of Hemsterhuis's publications, from the early letters to the late dialogues, share their origin in conversations and were subsequently published with or without direct reference to a discussion partner, without whom Hemsterhuis could not realise publication.[7] Moreover, the difference in form between the letters and the dialogues reflects de Smeth's passivity, on the one hand, and Diotima's – as Gallitzin was now called – active participation, on the other.

Letter on Man: Publication Details

According to its title page, the *Letter on Man* was published in Paris, and there is no mention of a printer's name. Most probably, however, these publication details were not merely incomplete but also fictitious. Since the publication was organised by Hemsterhuis without commercial purpose, there was no need to mention a bookseller or a printer. As far as we can tell, Hemsterhuis had no connections whatsoever in Paris, and certainly not printers or booksellers there. It is much more likely that the book was printed in Amsterdam or The Hague – for example, by Marc Michel Rey in Amsterdam, who had also printed the *Letter on Sculpture*. However, direct evidence for such a claim is lacking.

Nevertheless, Hemsterhuis had already acquired some fame as a philosopher, and this can be discerned from the fact that, alongside the 'official' publication of 242 pages numbered in duodecimo format, there immediately appeared a pirated edition that included the same incomplete publication details: 'In Paris, M. DCC. LXXII.' This edition has sixty-eight pages, printed in a larger format, octavo, with a very compact layout and consequently with much less spacing than is customary in Hemsterhuis's works. The title page possesses a baroque-style vignette, in a style that seems far from Hemsterhuis's own preferences: a standing female figure (Venus?) with a mask in her right hand and a mirror in her left hand. The text of the octavo edition is almost identical to that of the original edition, albeit with about 200 unimportant variations in spelling and punctuation.[8] This later imprint was made fairly quickly, because Hemsterhuis was already referring to it in a letter dated 13 March 1773, sent to his friend Cornelis Ploos van Amstel, an Amsterdam merchant (*B* 12.60). In another letter, Hemsterhuis divulged that the pirated edition was printed in the city of Liège, for Hemsterhuis asked a bookseller to provide him with some copies of the Liège reproduction so as to be able to distribute them, 'since the other one is not available, not just very expensive' (*B* 12.110). This is all we know about the initiator and publisher of this pirated version.

Hemsterhuis later added some addenda to the *Letter on Man*: one addition and ten clarifications (as they are named). He added them in an interleaved copy of the duodecimo edition,[9] and, separately from the text of the *Letter on Man*, they were also copied and passed on by his secretary.[10] These clarifications were subsequently publicised to a wider audience, since they were transcribed into the 1792 edition of

the *Oeuvres philosophiques* and designated as annotations made by 'Monsieur Dumas' (they are, however, missing from the 1782 German translation, *Vermischte philosophische Schriften*).

The attribution of these clarifications to Dumas is particularly interesting, since it perhaps suggests, once more, the presence of a discussion partner. Hemsterhuis first mentions the name Carel Wilhelm Frederik Dumas (1721–96) in correspondence in 1768. In 1766, Dumas had become an agent of the United States of America for the Republic of the Netherlands in The Hague.[11] 'Le Américain', as Hemsterhuis sometimes called him, assisted in the publication of *Aristaeus* and perhaps helped with other titles too. It was probably thanks to Dumas that Benjamin Franklin acquired copies of six of Hemsterhuis's books.[12] In any case, it is most likely that Dumas contributed to the clarifications of the *Letter on Man* and Hemsterhuis inserted them into the interleaved copy (and perhaps this was his personal copy). In the translation that follows, we have included these clarifications at the end of the main text.

Philosophical Description of … Fagel: Publication Details

After the death of his friend François Fagel on 28 August 1773, Hemsterhuis quickly wrote this portrait. On the one hand, it is a work that emerges out of very particular circumstances – something like an *in memoriam* or an *oratio funebris*; on the other hand, it is much more than that, since Hemsterhuis identifies in Fagel's character the ideal administrator and philosopher.

A few generations earlier, members of the Fagel family had obtained high office in the administration of the States General, through family ties and a legal education. The office of first clerk to the States General provides a snapshot of a remarkable dynasty: Fagel's Great-grandfather, Hendrik [I] Fagel ('Hendrik the eldest', 1617–90), his great-uncle, François [I] Fagel ('François the elder', 1659–1746), his father Hendrik [II] Fagel ('Hendrik the elder', 1706–90), and then his son, Hendrik [III] Fagel ('Hendrik the younger', 1765–1838). They all filled this role in succession, in a quasi-dynastic fashion. 'Our' François [II] Fagel ('François the younger', 1740–73) made the obvious career choice when entering the administration of the States General: in 1762 he became assistant clerk and in 1766 he was appointed second clerk alongside his father; only his early death prevented him from succeeding his father as first clerk. Thus, the Fagel family acquired a prominent social standing – confirmed in 1815 by elevation to the Dutch nobility.

It is not certain how and when Hemsterhuis became acquainted with the much younger François Fagel. It has been suggested that Hemsterhuis served the family as a tutor before or during the years Fagel studied in Leiden (from 1754 until his doctoral promotion in law in 1759). A close relationship was, at any rate, established and this may also explain why Hemsterhuis was able to obtain his position in the civil service of The Hague in December 1755. Later, in 1762, François Fagel became a close colleague of Hemsterhuis within the civil service, and this led presumably to more intensive contact in the period leading up to the publication of the *Letter on Man*. After Fagel's death, Hemsterhuis remained in close contact with

his family: according to his correspondence, the older sons visited him regularly and Hemsterhuis designed a funeral monument for Fagel's widow after her death.[13]

Handwritten copies of the *Philosophical Description* have not survived. In 1773 (the same year as the original publication), two different Dutch translations were published, independently from each other: *Wysgeerige beschryvinge van den aart en inborst van […] Fagel […]*, in octavo, published by Marc Michel Rey; and *Wysgeerige afbeelding van het caracter van […] Fagel […]*, published in quarto, with the imprint of P. F. Gosse, bookseller and printer in The Hague. A few decades later, further Dutch translations were published – Hemsterhuis's portrait of Fagel proved of lasting inspiration. A German translation was published in 1797, in the third volume of the *Vermischte philosophische Schriften*.

'My System'

As early as September 1772, in the *Journal encyclopédique*, there appeared an announcement of the *Letter on Man*. Although it provided more of an abstract with long quotations than a review, the anonymous author did criticise the austere presentation of the work and its lack of elegance:

> [W]e doubt that his work is accessible to a large number of readers. Accustomed to traversing the vast region of intellectual topics, metaphysicians will very probably have little trouble in understanding it; but as this letter is intended for the instruction of all men, it would be desirable if it were less metaphysical, and especially if there were a little more warmth, either in the justification or in the reflections, which are, moreover, very accurate…. But, in our opinion, the least skilful and the least sure means of succeeding is to present the truth in all its austerity so that the crowd will go astray, that is, by stripping off the ornaments which are useless and strange only in the eyes of the true sage, but fit so well with the judgement of the majority.[14]

The critic would, it seems, have been very content with Hemsterhuis's future transition from a lengthy letter format to dialogues.

It is therefore a worthwhile undertaking to provide some help for the 'large number of readers' daunted by 2,300 lines of uninterrupted prose, by dividing the *Letter on Man* into sections according to subject matter.[15] I follow a cursory arrangement of the contents as suggested by Meyboom and May,[16] but in simpler form and without further subdivision. The transitions between sections are, in fact, mentioned by Hemsterhuis during his exposition, although sometimes very casually, and the problem is that he does not explicitly indicate them in the layout of the text.[17] In what follows, then, I provide a structure for the *Letter on Man*, providing in each case a brief outline of the line of argumentation given in each of the sections without treading onto the thorny ground of interpretation or commentary.

- Section 0 (pp. 88–9 below): *Editor's Announcement*. The prevailing freedom of the printing press, with the flow of atheistic and materialistic ideas emerging from it, is mentioned as a reason for writing this book. In clarification (**a*), reproduced at

the end of the text, this is connected with an account of the inability of humans to retain their grasp of truths, especially when it is a matter of drawing conclusions from complex reasoning.

- Section 1 (p. 89 below): *Short Introduction*. Hemsterhuis has brought order to his ideas, that is to say, an order to 'the investigations which … concern the nature of man, those things which are outside him, and the relations that he is able to have with these things' (p. 89 below).
- Section 2 (pp. 89–94 below): *Man as a Thinking Being*, 'who has the faculty of sensing, thinking and reasoning' (p. 94 below). The point of departure is a positive formulation of man's ability to acquire reliable knowledge, without worrying about any sceptical anxieties. This epistemology presupposes that man has restricted access to the many possible faces of the universe, since he is restricted by the small number of organs he possesses, but these few organs do still provide reliable sensations. From the sensations which result from the relations (*rapports*) between the objects and the organs, there arises primitive ideas which can form memories in the mind and be further processed as signs. Hemsterhuis emphasises that organs are not only physical or anatomical points of mediation between world and body, but also include the medium that stands between the organ and the object, such as light in the case of the eye and the vibrations that touch the ear. The process of acquiring knowledge is characterised by a confidence in objective reports, since things act in parallel with our subjective sensations and ideas, notwithstanding the restriction that other organs show different faces of reality. Moreover, by means of reason, as his intuitive faculty, and by means of velleity (i.e. the human capacity to will before it is focused in a particular act of will), man can further expand the ideas obtained, and, by means of this process, the human being can be distinguished from animals.
- Section 3 (pp. 94–9 below): *On Man as an Acting Being* – 'Let us now go on to contemplate man as an acting being' (p. 94 below). Based on the principles of Newtonian mechanics, Hemsterhuis states that only something external can change the movement of a material object and, in the case of the human body, this is done by an act of velleity. Hemsterhuis thus attempts to prove the existence of the soul and its eternity by means of syllogistic reasoning. The organs act as the gateway to external objects for the soul, and the soul obtains awareness of itself by the resistance it encounters from external objects. The soul imposes its velleity within the framework of natural laws and in this way experiences freedom to act.
- Section 4 (pp. 99–104 below): *On External Objects* – 'the contemplation of things that are outside of man' (p. 99 below). Matter is known by way of the various forces it is subjected to, like inertia, attraction and a centrifugal force. Reflection on objects in all their modifications and diversity – such as the ingenious design of the eye, with all its subtleties – leads to the conclusion that the author of the universe is an intelligent Creator. The infinity of billions of worlds, which can be attributed to this Divinity, reflects an infinite number of faces of the universe. The universe shows, among others, a moral face to the human subject.
- Section 5 (pp. 104–12 below): *The Moral Organ* – 'this organ, which until now has no proper name and which is commonly referred to as heart, sentiment,

conscience' (p. 104 below). When it comes to perceiving the moral face of the universe, Hemsterhuis focuses on the organ that he will later call 'the moral organ' (p. 109 below). Unlike (or perhaps more than) the other organs, which merely report relations with external things, the moral organ not only makes the soul aware of sensations of relations with external objects, but also gives it a sense of self-awareness. And it does so because it confronts its own velleity with other velleities 'through communicative signs' (p. 105 below). There follows an interlude on signs and primitive language. When living in an isolated state, man is not aware of the moral face of the universe (since this depends on social interaction) and, consequently, is unaware of virtue. As soon as man enters society, however, individual virtue comes to depend on the perfection of an individual's moral organ. Clarification (**h*) discusses the interdependence of organs and the outside world, which is incorporated into the text of the later dialogue, *Sophylus*.[18]

- Section 6 (pp. 112–21 below): *Society and Religion*. It is thanks to the moral organ that the individual recognises himself in other human beings – and this makes him a social being. In a hypothetical primitive society, everyone was equal until the invention of property gave rise to inequality and led to the establishment of a mechanism of legislation. Society became a physical object like other systems with laws and rules, and the agreed laws bypassed and thus weakened the moral organ. Something similar happened with religion. The relation of the individual to God runs through the moral face of the universe and religion is the result of the relation of each individual to the Supreme Being (and thus to the moral face of the universe through the moral organ). What follows is a long reflection on received religions, the mixture of religion and civil virtue, and how Christian religion 'resembles a revelation … which calls man to an individual happiness' (p. 117 below). This digression ends with a complaint about the clash between harsh orthodox theologians and atheist philosophers, which is 'the most dangerous evil … attacking society' (p. 120 below).
- Section 7 (pp. 121–4 below): *Reflections on Human Knowledge*. This section discusses, in turn, the origin of language, writing, musical measure, the different sciences and mathematics. The planetary constellation provides the model for 'a general spirit which [spreads] its tone or its colour over all sciences and all arts, or over all branches of human knowledge', that is, 'the dynamic laws of human knowledge' operate in analogy to the position of the earth relative to the sun in an elliptical cycle (p. 123 below). Roughly speaking, a perihelion (i.e. when the distance to the sun is relatively small) corresponds to the period when the sciences and general spirit flourish, and an aphelion corresponds to the period when stagnation and decay occur. The previous perihelion was the ancient Greek era, after which an undefined aphelion period followed (this is not further specified by Hemsterhuis). At present, we live in another perihelion, according to Hemsterhuis, and he promises to return to this topic, a promise he fulfils in *Alexis*.
- Section 8 (pp. 124–6 below): *Summary and Conclusion*.

Some subjects recur frequently in the dialogues that follow. For example, I have already mentioned that some subjects return in *Sophylus* and *Alexis*. Moreover, the

moral organ's role in relationships with the divinity (section 6) returns in *Aristaeus* (although it is there called the moral principle) and the brief description in section 5 of the dependence of individual virtue on the personal development of the moral organ is the subject of Diotima's speech in *Simon*.

Hence, the *Letter on Man* encompasses a wide range of philosophical topics, covered elsewhere in more detailed treatment. In the correspondence with his Diotima, Hemsterhuis repeatedly speaks of 'my system' or, to emphasise its dialogic genesis, 'our system'. In *Sophylus*, Hemsterhuis defines a system as that which assembles many statements on various topics, such that the reader experiences them all as truth and ordains them a beautiful whole. However, in so doing, he was in fact mocking contemporary pretensions to systematicity: 'All systems of philosophy that men have so far wrought are only loose assemblies that appealed to some individual or to his sect' (*EE* 2.47). This could well also be a piece of self-criticism. 'Mon système' should thus be interpreted fairly ironically, in line with the ironic tone Hemsterhuis often deploys in correspondence with Gallitzin. His publications were, however, written in all seriousness: the letters even more so than the sparkling dialogues. And this must be a warning to all his readers: we must be wary of interpreting Hemsterhuis as too systematic. His publications are not elaborate in the way that Spinoza's, Locke's or Kant's major works are; in their brevity, Hemsterhuis's publications were comprehensible to many (despite what the *Journal encyclopédique* implied) and written from an erudite standpoint but with little jargon. This was his charm as a philosopher – as Moenkemeyer puts it: 'Hemsterhuis offers *fermenta cognitionis*, fruitful ideas capable of being elaborated, and this is what endeared him especially to such thinkers as Herder, Novalis, and Friedrich Schlegel'.[19] And Hemsterhuis himself was satisfied with the result: '*Man and his relations* contains in essence all I know and all the great truths of which I am deeply convinced in my consciousness' (*B* 1.166).

Annotated by Diderot

On his trip to Saint Petersburg, Diderot stopped over at The Hague. He stayed there from June to August 1773 and met Hemsterhuis. Hemsterhuis gave Diderot a copy of *Letter on Man* bound with interleaved blank pages for the insertion of any notes. Diderot took the copy to Russia and on his journey back to Paris, while again passing through The Hague, from April to October 1774, he returned it to Hemsterhuis with many comments. This manuscript was rediscovered and published in 1964 by Georges May. It is usually referred to as Diderot's *Commentary on Hemsterhuis*.[20]

Much of the commentary, particularly at the beginning, consists of linguistic correction. As Diderot puts it: 'But if you had lived two or three years in our capital, in close contact with my friends, you would have found a common language that would have readily lent itself to your ideas; and your work would have been infinitely more pleasant and easier to read.'[21] More important, however, is Diderot's diligent engagement with Hemsterhuis's argument. This is remarkable because Diderot is considered a representative of the materialism and libertinage against

which Hemsterhuis wrote the *Letter on Man*. In the end, Diderot is appreciative of the text ('I was very pleased to read your work') and this appreciation seems to go beyond mere courtesy. It is partly due to Diderot's working method: he often formulated his thoughts by reading and commenting on the writings of others. He operated as a glossator, shifting from inspiration to creation – and one can speak of a form of symbiosis or even parasitism.[22] At the same time as his commentary on Hemsterhuis (i.e. during the trip to Russia), Diderot followed the very same method when reading Helvétius's recently published *L'Homme*, and this resulted in the *Réfutation d'Helvétius*. For Diderot, the two projects were in fact connected, because he positions himself between two poles, rejecting both: Hemsterhuis's position, on the one side, and the excess materialism of Helvétius, on the other. How seriously he took the labour of providing a commentary on Hemsterhuis is also evident from the passages that went on to inform other works by Diderot (these have been collected by May).[23]

Diderot therefore enters into dialogue with Hemsterhuis. There was, indeed, some affinity in style between these authors.[24] Diderot was, as it were, invited to enter into dialogue with Hemsterhuis, since the loose and somewhat hasty form of presentation in the *Letter on Man* was not foreign to someone who himself used various literary forms and had edited an *Encyclopédie* of heterogeneous entries.

However, all this should not cover over the substantive differences between them. Diderot was intent on a naturalist reduction of important concepts that Hemsterhuis introduced. Concerning velleity in particular, Diderot writes that he does not understand what Hemsterhuis means by it and that the word irritates him.[25] Moreover, whenever Hemsterhuis uses the word 'soul', Diderot indicates the need to replace it with 'man' or 'animal', so as to avoid the impression of some small, incomprehensible harp player plucking the strings of the organs.[26] When it comes to the moral organ, he asks where it is anatomically located.[27] Much later, Hemsterhuis would react to this last criticism in his correspondence with Gallitzin, admitting that he in fact used the term 'organ' 'a little too much in the figurative style' (*B* 2.55).

Of course, Hemsterhuis was not at all convinced by Diderot's critique. While, in correspondence, he often spoke benevolently of Diderot as a person, he did still identify him as the self-proclaimed king of the atheists (see *B* 5.48, 10.20). Unlike the clarifications attributed to Dumas, Hemsterhuis did not insert any corrections or remarks from Diderot's commentary into his interleaved copy of the *Letter on Man*. In 1782 and again in 1786, he discusses the possibility of reissuing the *Letter on Man* with Gallitzin, along with the Dumas's notes and making use of Diderot's remarks on language (*B* II.9, III.93, 7.31). But all such plans went nowhere.

It is also worth mentioning that, in December 1784, Hemsterhuis read a manuscript of Diderot's *D'Alember's Dream*, which he obtained from Gallitzin's husband with whom Diderot had been staying in 1773 and 1774. It included four dialogues – a remarkable fact, since the work eventually came to be known in the form of three dialogues. Hemsterhuis fully recognised Diderot in it, with all his unique traits; however, his judgement on the contents is harsh:

> This is the most pernicious work I have seen, either among the Ancients or among the Modern…. In the first three dialogues, he preaches materialism with

> all the strength of an eloquent man, who has a finesse of mind, who has a deep knowledge of what is called the human heart, who is a pitiful psychologist, a superficial metaphysician, and who lacks the geometric spirit and consequently accurate and sure tact.

But its style is, nonetheless, 'absolutely perfect', according to Hemsterhuis (*B* 5.96).

The Early Reception in Germany

In 1779 Gallitzin moved from The Hague to Münster. She was impressed by Franz von Fürstenberg, a politician in the Principality of Münster, and wanted to apply his views on education to her children. Hemsterhuis and Fürstenberg had met before, in April 1778. And Hemsterhuis was full of praise for him. In turn, Fürstenberg admired Hemsterhuis's writings and told him that, as Hemsterhuis relates to Gallitzin, '*Man and his relations* is giving birth to some writings in Germany, among others the one I am sending you – an Essay on the universe' (*B* 1.107). Its author is named Heissman or Hoissman (the name as written is hard to read) and he is praised for his erudition. I have not been able to trace either this author or the mentioned book.[28] In an undated letter, Hemsterhuis speaks of a passage from the *Letter on Man* extracted by Haller, presumably Albrecht von Haller (*B* 1.122). However, I have not been able to identify this '*extrait*', or, in fact, anything else that can establish a relationship between Haller and Hemsterhuis. The only result of my search for early German responses to the *Letter on Man* is an article in a journal, *Frankfurter gelehrte Anzeigen, vom Jahr 1772*.[29] The author is probably L. K. von Schrautenbach, who used the octavo edition (as can be concluded from his references to the page numbering). It is not a critical review, but a summary abstract. In short, Fürstenberg's remark, intended as a compliment, remains largely unsubstantiated.

These dead ends do not mean that there was no interest in the *Letter on Man* in Germany. On the contrary, his earlier published letters had been much discussed, and J. G. Herder translated the *Letter on Desires* into German, followed by a '*Nachtrag*'. Herder was also directly involved in Gallitzin's plans to produce a German translation of Hemsterhuis's work, including the *Letter on Man*. In mutual correspondence, initiatives repeatedly emerged to encourage others to translate it or for Gallitzin to take this task upon herself. Hemsterhuis usually responded in a manner that can be described as more courteous than encouraging. However, reality overtook all these plans: in 1782 the first two volumes of the *Vermischte philosophische Schriften des H. Hemsterhuis* were published without any input from either Gallitzin or Hemsterhuis. The translator was C. F. von Blankenburg, who sent Hemsterhuis a copy, which Hemsterhuis appreciated as accurate (*B* 5.58, 4.5). The third volume of the *Vermischte philosophische Schriften* was published in 1797. Blankenburg had died in the meantime and the translations included in this volume were probably undertaken by K. T. von Dalberg, whom Hemsterhuis had met in 1785 or thereabouts.

Fagel Captured as an Ideal

The *Letter on Man* was probably written for François Fagel, as a crash course in philosophy.[30] Did Fagel need this additional training? Was it written to augment his knowledge of the threats of materialism and atheism, as expressed in the preface to the *Letter on Man*? Even if it was addressed to Fagel, his name was still concealed in anonymity. On the contrary, in a memorial such as the *Philosophical Description of … Fagel*, such discretion was not appropriate. Now the lesson was presented directly, transforming a work of mourning into a philosophical ideal.

The portrait of Fagel painted by Hemsterhuis belongs to the genre of the *honnête homme*. It offers an example of sociability and an ideal of a man with spiritual nobility – someone who is never merely mundane. It can be described in terms of a gallant refinement of tastes and manners:

> Partly because of the influence of the salons and partly as a result of disillusionment at the failure of the Fronde, the heroic ideal was gradually replaced in the 1650s by the concept of *honnêteté*. The word does not connote 'honesty' in its modern sense but refers rather to an ideal aristocratic moral and social model of behaviour, a sincere refinement of tastes and manners. Unlike the aspirant after *gloire* ('glory'), the *honnête homme* ('gentleman') cultivated the social graces and valued the pleasures of social intercourse. A cultured amateur, modest and self-effacing, he took as his model the Renaissance *uomo universale* ('universal man').[31]

Hemsterhuis customised the genre with some biographical data, although at no point is the text very personal. He later describes the result 'as a portrait … as a true picture [comme portrait … comme tableau fidelle]' (*B* 1.7). Much later, Hemsterhuis received a request to produce a similar portrait of his old friend Petrus Camper (1722–89), but he declined (despite his greater psychological insight into such a very old friend), since the result would have been 'unintelligible to everyone' (*B* 10.44). Moreover, Camper, with his restless and often quick-tempered character, might have been less recognisable as an *honnête homme* or exemplar.[32]

For us, the value of the *Philosophical Description of … Fagel* does not lie in whether it is a true image of the deceased or not, nor even in Hemsterhuis's development of this genre of writing. Its importance lies in the fact that Hemsterhuis here provides a synopsis of many of the topics that were important to him. For example: Fagel 'possessed that elevation of mind which never sees one thing alone, but which embraces several at the same time, along with the relations which link them – and this gives knowledge a great scope' (p. 137 below). Or again: 'useful for education … what presides for the most part over his actions is not one particular talent that is predominant or is most cultivated; it is the result of all of his talents together' (pp. 137–8 below). Or once more: 'Regarding the fine arts…. His tact was so fine, his taste so exquisite, and the rapidity with which he embraced a whole was so great that, in a moment, he reached a judgement' (p. 139 below) – in this quotation we recognise the optimum formula of the *Letter on Sculpture*. In short, the *Philosophical Description of … Fagel* provides a concise and vivid illustration of Hemsterhuis's exposition of man and his relations, set in the context of a specific individual and stripped of all metaphysical allusions.

Hemsterhuis as Provocation: The German Reception of his Early Writings

Gabriel Trop

The spring (*ressort*) – metallic coil twisted about itself, elastic and capable of being loaded with potential energy – is a basic figure of Hemsterhuis's thought. In the *Letter on Man and his Relations*, he calls it 'infinitely curious' (p. 98 below). When pushed, the spring pushes back; it thereby brings into view the constant presence of active forces in a cosmological field. It has the function in Hemsterhuis's thought of what Goethe would later call a 'primordial phenomenon' (*Urphänomen*) by archetypally embodying and disclosing an ontological dynamic that subtends all individuated things. Active force, however, is made visible only in the presence of an obstacle: the spring against the hand. In Hemsterhuis's thought, this dance of passivity (the hand as pushed) and activity (the hand as pushing) makes everything full of life, vitalised. In Hemsterhuis's words: 'everything is coil-spring' (p. 100 below).

The reception of Hemsterhuis's corpus itself over the course of the late eighteenth century and the early nineteenth century exhibits this elastic and tensile quality. The early works of Hemsterhuis – published between 1762 and 1773 and consisting of the *Letter on an Antique Gemstone*, *Letter on Sculpture*, *Letter on Desires* and *Letter on Man and his Relations*, as well as the *Philosophical Description of the … Late Mr F. Fagel* – were discussed, debated and often co-opted in numerous controversies circulating in the public sphere, above all in German lands in the wake of Johann Gottfried Herder's translation of *Letter on Desires* in 1781 in *Der Teutsche Merkur*. While Hemsterhuis's writings were also the subject of debate in the Netherlands and in France, it is above all German thinkers and authors who gave distinctive contours to the many strands in Hemsterhuis's works and channelled these ideas into innovative discursive forms.

Hemsterhuis was seen by German Romantics such as Friedrich Schlegel and Novalis (Friedrich von Hardenberg) as an author who had an anticipatory function for their own aesthetic and philosophical programmes. He functioned as the index of a philosophy that would ground attempts to reconfigure the senses; develop new organs of feeling, thought and spirit to be exercised; posit the past as an ever-present stimulus for speculative projects oriented towards the future; cultivate forms of desire for an (always frustrated) union with a postulated object or subject – including an absolute, infinite form of the divine – that motivated much Romantic thought. Germaine de Staël, in *De l'Allemagne*, approaches Hemsterhuis in this manner: Hemsterhuis 'indicated in his writings the majority of the capacious ideas upon which the new German school is founded'.[1] She locates him, along with Jacobi and Lessing, as the major source for a critique of Enlightenment (particularly French) materialism that she understands as one of the major ideological commitments of the Romantic movement.

More accurately, Hemsterhuis comes to occupy a position of tension along an axis of materialism and immaterialism among those who most intensively engaged with his work. Although he insists on a stark distinction between body and soul, he explores conceptual operations – specifically those attributed to the figure of the organ – that integrate these two differentiated domains into an overarching functional framework and bring them into a zone of commensurability with one another;[2] according to Hemsterhuis, the soul needs organs as does the body if it is to have a sense of its external world and its own bounded identity. Such associations will lend plausibility to gestures such as those undertaken by Franz von Baader, who, in his *On the Pythagorean Quadrate in Nature* (1798), attributes the following gnomic utterance to Hemsterhuis (which has not been found in his corpus and which thus became the source of a minor philological controversy[3]): 'the body is a coagulated [*geronnen*] mind' and 'the bodily universe is a coagulated god'.[4] Baader is drawn to Hemsterhuis as an agonistic and adventurous thinker, one who simultaneously differentiates and brings into a zone of indifferentiation operations associated with mind and body (for example, through the postulation of an attractive force and an inertia that applies equally to both domains). Hemsterhuis continues to resonate with Romantic thinkers who oscillate among polarities, explore incommensurabilities and experimentally blend seemingly discrete discursive domains (ethics and physics; physiology and music; perception and religion). Indeed, de Staël draws attention to one example of such blending already found in Hemsterhuis: the attempt to unite the abstraction of form with the passion of ethics, synthesising the geometrical spirit – a tendency to mathematical or algebraic formulations – and 'the pure love of the beautiful'.[5]

Hemsterhuis becomes something of a paradigmatic thinker for the Romantics by bringing together two distinctive (but not necessarily oppositional) forms of thinking: the Newtonian and the Platonic. This dual commitment, although more decisively articulated in the later dialogues, is operative in the earlier works as well. The creative appropriation of empiricist doctrines repurposed as speculative metaphysical principles on the one hand – the science and semantics of forces of attraction and repulsion, gravitation and inertia – and a Platonic erotics and metaphysics, along with an emphasis on the immaterialism of the soul, on the other hand, positions Hemsterhuis as a heterogeneous and syncretic figure, one capable of captivating thinkers and artists with dramatically divergent investments. The accretion of different and seemingly incompatible strands of thought accords Hemsterhuis a discursive mobility that makes him into a zone of experimentation and provocation for some of the most significant controversies of the age.

The controversy that most clearly establishes Hemsterhuis as such a figure is to be found in letters and conversations exchanged between Gotthold Ephraim Lessing, Friedrich Heinrich Jacobi and Moses Mendelssohn in the 1780s centring around the legacy of the philosophy of Baruch Spinoza. This controversy, initiated by Jacobi in his *Über die Lehre des Spinoza in Briefen an den Herrn Moses Mendelssohn* (1785, with a second edition in 1789) and eventually known as the pantheism controversy, features Hemsterhuis as a central figure. Jacobi, who saw a materialist and Spinozist philosophy culminating in nihilism and sought a basis for cognition and action in the pre-cognitive concept of faith, portrayed Hemsterhuis as an ally

in his critique of (in his view) nihilistic materialism. However, according to Jacobi, Lessing equally found Hemsterhuis to be an ally in the articulation of a Spinozist philosophy, one that adhered to the proclamation *hen kai pan*, one and all, that was to become the motto of eighteenth-century Spinozism. According to Jacobi, Lessing claimed to find in Hemsterhuis's *Letter on Man and his Relations* a hesitance or ambivalence towards this manner of thinking, which would come to fruition as unambiguous Spinozism in the later dialogues – Spinozism understood in Lessing's sense of the emancipatory 'spirit' of Spinoza, which one should not confuse with the doctrines of Spinoza themselves.[6]

That Hemsterhuis could be claimed as a partisan for two sides of a seemingly irresolvable philosophical struggle casts him as a figure who cuts across the largely heuristic, historiographical distinctions that have often been invoked to make sense of the complexity of eighteenth- and early nineteenth-century intellectual history: Sentimentality, Enlightenment, Storm and Stress (*Sturm und Drang*), Classicism, Romanticism. Rather than localising Hemsterhuis within the framework of such heuristic categories, this introduction approaches Hemsterhuis as a source of particularised textual, cognitive and imaginative operations that are repurposed in different discursive domains at the height of his cultural relevance, around 1800. The reception history of Hemsterhuis can thus be marshalled in order to call into question his status as a static object for intellectual history (which stabilises the tendencies of his thinking by hypostasising them as past, no longer contemporary) and to awaken the provocative strands slumbering in his work, thereby reactivating some of the central commitments of his thought. To this end, what follows will be organised around the reception of each of his early writings, with the exception of *Philosophical Description of the Character of the Late Mr. F. Fagel*, which did not feature prominently in the various speculative and strategic appropriations of Hemsterhuis's thought.

Letter on an Antique Gemstone

The extensive reception of Hemsterhuis's writings is generally held to begin with the *Letter on Sculpture*, above all with the popular philosopher Christian Garve's review of the essay in 1771. *The Letter on an Antique Gemstone* appears by contrast to be of primarily antiquarian interest. While this letter was not taken up in the chain of explication, commentary and expansive and associative thought that would surround Hemsterhuis's later works, the text nevertheless indexes cultural and interpretive material practices that had a distinctive afterlife. Hemsterhuis's status as a collector – as one who attends to and preserves the relations between objects – was emphasised by the author Christoph Martin Wieland, who, after calling him the 'Plato of our times' in a letter to Jacobi in 1785, noted that 'everything in his head seems so neat and well organised, as if it were in a Dutch natural history cabinet'.[7] According to Wieland, Hemsterhuis fused antiquarian and philological knowledge with Platonic erotics and ethics. Nowhere is this fusion of philology, eros and ethics more tangible than in the materiality of the gemstone as it comes to light in the *Letter on an Antique Gemstone*.

In Hemsterhuis's letter, the gemstone functions as an epistemic object through which philological, natural-scientific, aesthetic and ethical practices and cultural techniques are gathered and honed. The gemstone is invested with a distinctive temporality, mediating between the antique past and the present in such a way that its particular inscription, its cut, is preserved and transfigured. The gemstone crystallises, materially and figuratively, a variety of cultural techniques – mining, cutting, representing, inscribing, collecting, reflecting, analysing – that aim at the idealisation and transmission of a cultural moment, its mythologies, histories and values. The particular gemstone analysed by Hemsterhuis represents an aesthetic and an ethical ideal of feminine agency (as so often is the case, directed towards repairing masculinity): Damarete, represented in the amethyst as a figure effectuating operations of sublimation, restrains and tames an unruly horse and an equally unruly, bellicose husband who threatens to destabilise political alliances. The gem captures the generation of ethical and political equilibrium in a material archive that itself becomes invested with a stabilising symbolic power.

Hemsterhuis's practices as a collector of gemstones, coins and ancient artefacts thus come into focus as the cultivation of a philosophical and aesthetic attitude consonant with his later emphasis on the development of a moral organ. As indicated by Wieland, Hemsterhuis himself gestures towards an eighteenth-century transformation of early modern practices associated with the cabinet of curiosities, a space in which the complications of the art–nature dyad – their differentiation and confluence, discontinuities and continuities – would be put on display.[8] It is precisely in the context of the power of such artefacts as well as the collection and hermeneutic practices surrounding them that Goethe will come to know and appreciate Hemsterhuis.

In an account of the collection of gemstones left by Hemsterhuis and Gallitzin ('Hemsterhuis-Gallitzinische Gemmensammlung'), Goethe describes his journey to Münster in 1792 in which the collection formed the 'spiritual-aesthetic midpoint around which friends – incidentally not quite in agreement in thinking and feeling – united over the course of several days'.[9] Significantly, Goethe's description of the gem as a midpoint around which an internally differentiated group is gathered invokes the cosmological and geometrical thought of Hemsterhuis, one in which attractive forces and elliptical orbits function as models of social cohesion and dissolution. For Goethe, the gemstone as 'spiritual-aesthetic midpoint' offsets the presence of entropic and demonic forces that threaten to erode social and political order. Goethe's *Campaign in France* (1822), which describes his journey to Münster in 1792 and his contact with the Münster Circle, accords precisely such a restorative function to the power of the gemstone. After his disastrous and destructive encounter with war in the failed military campaign in France between allied forces and the French Revolutionary Army, Goethe extracts a model of viable sociability from the group dynamics surrounding the gemstones of Hemsterhuis and Gallitzin.

While Goethe makes explicit mention of Hemsterhuis's *Letter on Sculpture* and his *Letter on Desires* in the *Campaign in France*, it is the gemstone as material-spiritual artefact, as a crystallisation of time and human personality, captured as if in a snapshot and mediated through art and conversation, that best channels aesthetic

and ethical practices into the fabric of a sociable human community. The *Letter on an Antique Gemstone* serves as an implicit source for the specific aesthetic and ethical operations foregrounded by Goethe in his retroactive description of the encounter with the Münster Circle in his *Campaign in France*. In 1792, when Goethe visited Gallitzin and her circle, Hemsterhuis had been dead for more than two years. Prior to his death, in 1786, Gallitzin had already distanced herself from Hemsterhuis and his deistic views, feeling more of an affinity with the traditional Catholic piety of Franz von Fürstenberg. Goethe, whose heterodox tendencies made him a somewhat alien presence in this community, found a way into the circle through the gemstone collection left by Hemsterhuis. In the *Campaign in France*, these gemstones mediate not only the distant antique past – as was the focus of Hemsterhuis's letter – but, more importantly, the recent past, indeed, the singularity of Hemsterhuis's own individuality and thought. The cohesive force of Hemsterhuis as a thinker and as an exemplar of aesthetic and ethical practices – which comes to light in the patience and aesthetic sense cultivated in the very practice of gathering and collecting gemstones, to which Goethe draws special attention – is then further channelled through the gemstones themselves, granting him a form of life after death; the gemstone collection is first and foremost the material form of the dead, 'the legacy [*Nachlaß*] of a departed friend who in these treasures appears always as present'.[10]

In line with the cohesive force of Hemsterhuis – his thought and his individuality as mediated through these objects – Goethe writes of the 'unity' produced by conversations held in the aura of the gemstones. This aesthetically produced unity is accompanied by a 'religious feeling'; however, Goethe differentiates such a feeling from 'the purest Christian religion' inasmuch as it insists on the irreducibly sensuous nature of aesthetic experience.[11] The gemstone becomes a sensuous mediator of the operations of Hemsterhuis's own philosophy: it brings desire and satisfaction, eros and knowledge, aesthetics and ethics, the sensuous and the ideal into a zone of commensurability and structures communal practices around these operations. In 1823, shortly after having written the *Campaign in France*, Goethe writes about the gemstone collection of Theodorus de Smeth, and recalled him as the addressee of Hemsterhuis's 'significant letter'.[12] Goethe's return to the inscribed gemstone as a vital object – a symbolic locus of aesthetic and ethical agency, one that captures the depth of time, the specificity of cultural forms and the afterlife of an individual being only to channel these energies into a reconfiguration of the present – develops the latent aesthetics in Hemsterhuis's letter, one that would be further explicated in the later works.

Letter on Sculpture

The *Letter on Sculpture* exercised a particular fascination over its eighteenth-century audience that made it into one of Hemsterhuis's most widely discussed texts. An aesthetic theory structured in terms of intensity and duration brought an otherwise classicist focus – the idealisation of Greek sculpture – into alignment with a discourse of optimisation that was to become a hallmark of the modern: a notion

of beauty as the greatest number of possible ideas compressed into the smallest possible amount of time.

The popular philosopher Christian Garve introduced Hemsterhuis's letter – and Hemsterhuis himself – to the German public in a favourable review in 1771, noting that Hemsterhuis's thought reaches into 'the most subtle speculations of metaphysics'.[13] Garve's association of Hemsterhuis's aesthetics with projects of metaphysical speculation lays the groundwork for a reception of Hemsterhuis as the representative of an aesthetics of subjectivity, one in which beauty functions as a training ground for sensate, cognitive operations. For Hemsterhuis, beauty 'has no reality in itself' (p. 66 below) and emerges only from relations (*rapports*) between things and the construction of one's organs, which in turn facilitates the production of ideas. Garve thus compares Edmund Burke's aesthetics of the beautiful object ('what must be in things'[14]) to Hemsterhuis's aesthetics of subjective operations ('what must take place in our soul'[15]).

Thinkers of the period who object to Hemsterhuis's formulation of beauty as the optimisation of a maximum of ideas in a minimum amount of time will nevertheless draw on this formulation as a springboard for attempts to explore, intensify and, above all, limit the scope of this purported aesthetics of subjective operations (although it is worth noting that Hemsterhuis's concept of the idea as a result of relations between organs and objects, as will become clearer in the *Letter on Man and his Relations*, extends beyond mere subjectivity). In part, such thinkers, in line with the tendencies of Enlightenment aesthetics, seek to distance themselves from the line of flight in Hemsterhuis's thought towards the absolute, towards a form of intuition that lies outside time and space. Hemsterhuis argues for the 'minimum of time' as the manifestation of a Platonic tendency in the human soul hostile to duration itself: that which in the temporality of the soul seeks a point outside of time in which the infinite extensive properties of an object could be grasped in an equally infinite intensive act of cognition. The literary critic Johann Heinrich Merck, in a letter to Sophie de la Roche directly following Garve's review, notes how this tendency towards the immediate perception of all qualities would simultaneously produce something like a cacophony, an undifferentiated excess of complexity. Merck desires from the aesthetic object an interplay of harmony and melody; drawing on and diverging from Hemsterhuis, he postulates an aesthetics of subjective operations that prioritises enumeration (qualities a, b, c, in temporal order) over contiguity (the concatenation of a–b–c).[16]

Moses Mendelssohn, in a discussion of the letter, proposes a modification to Hemsterhuis's formula based on a similar critique: he replaces the minimum of time as it tends towards zero (the tendency in Hemsterhuis towards an absolute intuition) with a quantum of time, a 'given' time, making duration into a dynamic and affirmative feature of the soul. Mendelssohn, in line with tendencies in the letter, equates Hemsterhuis's 'minimum of time' with the operation of unity and the 'maximum of ideas' with the concept of multiplicity; he thereby emphasises those aspects of Hemsterhuis's letter that accord with the rationalist aesthetic and metaphysical conception of order as one finds it articulated in Leibniz or Baumgarten, namely, as an act of cognition that synthesises multiplicity and unity.[17] He nevertheless shifts the emphasis of Hemsterhuis's thoughts in significant ways:

if Hemsterhuis aims to produce something like effortless cognition – a maximal grasp that flashes forth in a perceptual instant when confronted with an aesthetic object – Mendelssohn makes aesthetic temporality into the source of a cognitive exercise. According to Jason Gaiger, Mendelssohn expands Hemsterhuis's concept of duration to include the 'effort' taken to cognise as well as the varying quantity and quality of ideas (their clarity and vividness, for example).[18] The aesthetic object acquires a temporal dimension that serves the development of subjective capacities. In a later essay, Mendelssohn seeks to equilibrate 'objective' capacities for pleasure (*Unterhaltung*) – how external objects stimulate thoughts and feelings – with 'subjective' capacities for pleasure, or what the subject contributes to the process of aesthetic cognition (for example, the strength of one's internal imaginative force or the capacity to organise thoughts and feelings).[19] By seeking a series of constraints upon and revisions to Hemsterhuis's formalist and quantitative theory of aesthetic perception – which ultimately, in its most extreme form, seeks to grasp everything, all at once[20] – Mendelssohn mitigates those tendencies that the Romantics will come to appreciate in Hemsterhuis: the manner in which he unites 'Plato's beautiful flights of intuition with the strict seriousness of the systematiser',[21] as expressed in a fragment by August Wilhelm Schlegel.

Hemsterhuis's aesthetics – because of its perceived subjectivism and formalism – will invite comparisons with Kantian aesthetics in the wake of the 1790 publication of Kant's *Critique of the Power of Judgement*.[22] Jean Paul, in his *Preschool of Aesthetics* (1804), accords Hemsterhuis a liminal position between pre-critical rationalist aesthetics – the sensate manifestation of a metaphysical unity in multiplicity – and the Kantian doctrine of the free play of the imagination and the understanding.[23] As is the case in Kantian aesthetics, Hemsterhuis's formula seems to Jean Paul to be evacuated of specific content – severed from the materiality of the referent – and thus to produce a 'circle of the fantasy'.[24] In Jean Paul's account, the circle represents the most easily graspable geometrical figure of infinity as a holistic totality, but it is ultimately empty inasmuch as it remains a purely formal or logical structure. Jean Paul thus brings Hemsterhuis into proximity with what he calls 'poetic nihilism'.[25] Poetic nihilists lose themselves in empty self-reflection, embracing poetry as a universal form devoid of material specificity: they 'paint the ether in the ether with ether'.[26] According to Jean Paul, any formalist aesthetic practice – and most Romantics would fall into this tendency – fails without the constraints imposed by a mimetic theory of the beautiful, one that attends to the particular, albeit spiritually transformed in contact with ideality.

Goethe, for his part, also writes about the *Letter on Sculpture* in his *Campaign in France*, albeit in a manner that grants more material and phenomenal substantiality to Hemsterhuis's reflections. The engagement with Hemsterhuis generates one of Goethe's most significant statements about the concept of beauty, one fully commensurate with the dynamic structure of nature as a whole. Goethe writes:

> the beautiful and the pleasurable in the beautiful is found, so [Hemsterhuis] declared, when we comfortably view and grasp the greatest amount of representations in one moment; I, however, had to say: the beautiful takes place when we see the law-abiding living power [*das gesetzmäßig Lebendige*] in its greatest activity

> and perfection, through which we feel ourselves – stimulated to reproduction – equally lively and set into highest action.[27]

Goethe expands and qualifies Hemsterhuis's formula of the beautiful as the cultivation of a way of looking at and participating in the lawful self-organisation of the natural world. The beautiful is no longer limited to the domain of art, but extends to encompass all living processes. Important for Goethe is the vitalising gesture implicit in Hemsterhuis's thought: the beautiful makes visible a perpetually generative dynamic in which the viewer actively participates. Such a dynamic is indeed not foreign to Hemsterhuis; he writes, for example, of the power of the incomplete sketch that sets the poetic and reproductive faculty of the soul into motion. Something like this energy, which is further poetised in the Jena Romantic experiments with the fragment around 1800, is elevated to an aesthetic principle by Hemsterhuis in the rhetorical technique of aposiopesis: speech broken off (Neptune's *quos ego* in Virgil's *Aeneid*) and demanding completion in the mind of the recipient. Goethe's reflection, however, simultaneously expands the scope of these thoughts over the entirety of the natural system and limits them by referring to intuition as necessarily implying a law-driven (*gesetzmäßig*) process.

While Hemsterhuis intended the optimisation of the beautiful as a general aesthetic law, one that attends to mediated forms but is in its essence transmedial (applying equally to painting, sculpture, music, poetry), his *Letter on Sculpture* nevertheless insists on a media specificity in the service of this transmedial ideal. More precisely, Hemsterhuis's optimisation of beauty generates (as was common with eighteenth-century aesthetic theories) media hierarchies, with sculpture held up as the most perfect of the plastic arts due to its capacity to bring as much complexity and multiplicity as possible into the singularity of a perceptual event. Hemsterhuis's contribution to a sculptural aesthetics will be taken up – and held at a distance – above all in the Romantic discourse on sculpture around 1800.

The association of the sculptural with a holistic perceptual immediacy – and this in spite of Hemsterhuis's celebration of the incompleteness of the sketch and the rhetorical figure of aposiopesis – will make sculpture, for some of the Romantics, into an ideal that belongs increasingly to the past: to the distant past of ancient Greece, but also to the more recent past, in the (seemingly) classicising aesthetic paradigms of the mid- to late eighteenth century that draw on sculpture to synthesise unity and diversity (Hemsterhuis), celebrate equilibrium and sensuous idealisation (Winckelmann), or lose themselves in sensuous materialism and an erotic anarchism (Heinse). A. W. Schlegel draws on Hemsterhuis to hypostasise and historicise the visual ideality of sculpture as holistic, closed and stable – an embodiment of classical antiquity – and the modern as open, fragmentary and impressionistic, namely, as 'picturesque'. In Schlegel's 1809 *Lectures on Dramatic Art and Literature*, Hemsterhuis's notion of the sculptural is said to mark this historical and aesthetic caesura:

> Hemsterhuis makes the ingenious remark about the pictorial arts: the old painters were in all likelihood too often sculptors, and the newer sculptors are too much painters. This hits the actual mark: … the spirit of the entirety of antique art is plastic, while that of the modern is picturesque [*pittoresk*].[28]

The discourse of the picturesque – in line with a number of Romantic authors and thinkers, as Catriona MacLeod has shown – makes sculpture into an uncanny object out of sync with the dominant tendencies of the Romantic age.[29] The sculptural can nevertheless return in various guises and release counter-aesthetic energies, as one finds, for example, in the seductive and imaginative power of the statue of Venus in Joseph von Eichendorff's fairy tale *The Marble Statue* (*Das Marmorbild* [1819]) or in the necro-erotic fantasies of Heinrich Heine's *Florentine Nights* (*Florentinische Nächte* [1837]).

To a certain extent, Romantic authors (with certain exceptions, above all, F. W. J. Schelling, discussed in greater detail below) misrecognised one of Hemsterhuis's central insights into the sculptural, namely as a medial form that best enables the velocity of cognitive operations as they approach an absolute intuition: the subjective apprehension of the object in its full plenitude. If Hemsterhuis inaugurates the sculptural in relation to a conception of absolute thought, this potentiality will become submerged with changing notions of the absolute, above all in Hegelian aesthetics, which sees the idealised materiality of sculpture as a crystallisation of the norms of antiquity, and thereby defunct as a bearer of modern forms of intelligibility primarily associated with subjectivity. Schelling's nature-philosophical conception of the sculptural absolute in his *Philosophy of Art* (1802–3), although not explicitly invoking Hemsterhuis, resonates with the central gestures of Hemsterhuis's text, namely sculpture as the 'perfected informing of the infinite into the finite' because of the mobile and totalising gaze that surrounds the sculptural object – a truth 'covering all perspectives'[30] – and the fact that this manifestation of the infinite is to be 'measured as if with *one* sweeping gaze'.[31] While the mode of apprehension of the infinite as absolute cognitive act resonates with the ideal of beauty that associates sculpture with perceptual optimisation, Schelling expands the connotations of the sculptural absolute inasmuch as the sculptural object equally represents a zone of non-differentiation between death and life, the inorganic and ideality, materiality and mythopoetic divine source (the theogonic impulses of sculpture manifest themselves in the tendency of the artform to represent gods). Schelling's nature-philosophical aesthetics constitutes an important exception to the marginalisation of sculpture characteristic of the Romantic period, and it does so precisely by folding Hemsterhuis's notion of cognitive optimisation into the Romantic and Idealist philosophical discourse of the absolute.

Letter on Desires

If the *Letter on Sculpture* was the most controversial and highly debated of Hemsterhuis's earlier texts, the *Letter on Desires* was perhaps his most consequential. The letter contributed to an ontological and trans-discursive conception of force by analogising Newtonian attractive force that structures the field of matter and the immaterial psychic force that compels a subject to seek unity with objects and with other subjects; it made central the dialectic of desire and frustration as an infinite approximation of union – a tendency that would permeate discourses surrounding the self in subjective, erotic, political, philosophical and religious forms of thought

and practice in the Romantic period; it positioned the organ as a key concept of mediation, a term that would become ever more foundational in the intersection between metaphysics and media-theoretical operations around 1800, as Leif Weatherby has argued;[32] and it provided a paradigm for a concept of individuation predicated on a natural system in a state of contradiction with itself.

Herder was the first thinker in German-speaking lands to deeply appreciate the letter, which he read along with the *Letter on Man and his Relations* in 1772. He initially planned a translation of both letters; while his initial enthusiasm dampened, it was later rekindled, culminating in a translation that appeared in the November 1781 issue of Wieland's journal *Der Teutsche Merkur*, followed by a commentary on the letter in an essay entitled 'Love and Selfhood' that appeared in the same journal in December 1781. Herder's essay was included in later editions of Hemsterhuis's works – translated into French for the French editions – and was decisive for the reception of Hemsterhuis, above all in German philosophical and cultural contexts more receptive to his anthropological, ethical and cosmological investments. The essay galvanised and amplified operations of unification that would appear in diverse metaphysical and speculative contexts, reaching its apex in a style of philosophising around 1800 that has been described by Dieter Henrich as the 'philosophy of unity' or *Vereinigungsphilosophie*.[33] This designation, however, as Michael Franz has argued, tends to elide significant discursive differences,[34] itself bringing heterogeneous and disparate philosophical commitments under a single concept. The semantics of unity is equally operative within: pre-Kantian rationalist ontologies (the unity of the multiple, or variations on Spinoza and Leibniz that culminate in the affirmation of the 'one and all', *hen kai pan*); Platonic-mystical discourses (intuition of a pre-cognitive oneness and an *unio mystica* with the divine); and post-Kantian transcendental metaphysics, for example in Fichtean absolute idealism, in which the subject actualising its freedom is continually striving (and continually failing) to become identical with itself and with the world, and thus perpetually – absolutely – active, in accordance with a notion of the absolute itself as a self-positing activity.

It is surprising, in a certain sense, that Herder's essay lays the groundwork for Hemsterhuis as a foundational figure for what is called philosophies of unification. Rather than unification, one of the central gestures of Herder's essay consists in the *polarisation* of Hemsterhuis's thought; he casts Hemsterhuis's concept of love in a structure of oppositionality governed by forces of polarity, which in turn will attract Romantic thinkers who are drawn to polar oscillations as a generative dynamic of being. In Hemsterhuis's *Letter on Desires*, however, there is no repulsive force per se: only an attractive force and the force of inertia, the latter of which Hemsterhuis recasts as a 'directive' force that can produce obstacles to desires or redirect desires, but never eliminate desires. In Hemsterhuis's view, the force of inertia (which he defines idiosyncratically) is not opposed to attraction, but produces a surplus of force that is the condition of possibility for ethical practice: a form of sublimation that does not require the suppression of desire, but is commensurate with the absolute striving for its fulfilment.

Herder understands force – and more specifically the *oppositional* forces of attraction and repulsion – as a foundational ontological given governing the emergence

of order from disorder. Such opposing tendencies inscribe the potential for violence and deviation into natural history – love *and* hate – but also condition the successive generation of expansive, particularised human beings, commensurate with a programme of self-actualisation whose material, ethical and aesthetic forms will be gathered under the concept of formation (*Bildung*). Herder initiates a series of subtle – but significant – realignments in Hemsterhuis's thought: away from desires (which can be unruly and multiple, sensuous *and* intellectual) and towards longing (*das Verlangen*, which is how Herder translates *les désirs*); away from the *surplus* of inertia over attraction and towards an *oppositionality* between attraction and repulsion; away from the striving for total union between subject and object (at least in infinite approximation) and towards love as the binding of discrete beings who equally seek to maintain their individuality. Love, for Herder – unlike *désires* for Hemsterhuis – is a polarity generator: the passive and the active friend, the strong man and the weak woman. Herder's naturalisation of gender oppositionality flows from his postulation of attraction and repulsion as basic forces governing the emergence of stable individuated forms. Unlike Herder, Hemsterhuis's postulation of attraction and inertia in the *Letter on Desires* does not establish oppositionality as a structure of force, thereby rendering more mobile the possible emergent relations between entities as they move towards one another.[35]

Herder's essay indicates an anxiety surrounding Hemsterhuis's concept of desire inasmuch as it seems to reduce individuation to a remainder and hint at a second-order desire for self-annihilation; an entity seeking perfect unity with its object of desire is always attempting – and failing – to eliminate its own individuality. By inscribing selfhood (*Selbstheit*) into a polar relation with love (*Liebe*), Herder secures the individual as a stable ontological structure: a basic unit of nature. Where Hemsterhuis gravitates to the figure of the organ as a boundary concept that simultaneously separates and binds subjects and objects, enabling and impeding desire, for Herder, God limits desire through the establishment of 'isolated, individual being [*isoliertes einzelnes Dasein*]'.[36] Hemsterhuis also makes God into the source of an individuating force; however, he describes this force as a disintegrative 'foreign' force that breaks down individuals into coexistent, coherent parts, and parts into relations, which in turn make possible the laws of the differentiated cosmos. This foreign, individuating force generated by the organisation of internal parts – what Hemsterhuis calls inertia – prevents the collapse of entities into sheer non-differentiation. Individuation is thus part of a well-ordered cosmos for Hemsterhuis. In comparison with Herder, however, Hemsterhuis's account of individuation is at one and the same time more integrative (tending to lose itself in the other) and disintegrative (predicated upon being broken down into particularised relations). The ontological basis of Hemsterhuis's individuation is ultimately predicated on *contradiction* – the 'forced state' of a cosmos in which there is a non-coincidence between attractive force and inertia – rather than on Herder's ontology of force *opposition*.

Herder's repurposing of Hemsterhuis nevertheless sets the stage for literary and philosophical experiments revolving around operations of individuation and unification in the period around 1800. Perhaps counterintuitively, the critical potential of many such experiments lies in the manner in which they deepen and intensify the problematic and dissonant nature of cultural, social and political conditions.

Such will be the case in a preface to an early draft of Hölderlin's *Hyperion* (1794), which places the ideal of beauty as an infinite approximation of unity in the service of democratic-revolutionary politics aiming to resolve the dissonances between self and world. In Hegel's early theological fragments (1797–8), which Claudia Melica has constellated with Hemsterhuis and Herder,[37] the ineliminable remainder of individuality – possession and selfhood, *Eigentum* – persisting in the relationship of love is resignified as shame, indeed, as a marker of the irreducibly fallen condition of bourgeois civil society. Schleiermacher, in his *On Religion: Speeches for the Educated amongst its Despisers* (1799), draws on the semantics of unification in order to redefine religion as a desire for the infinite that seeks the dissolution of the principle of individuation. This sought-after dissolution of the self, however, generates paradoxical effects: it releases an energy that loosens institutional (above all state-driven) forms constraining and guiding the expression of religious sentiment, thereby making possible new emergent forms of sociality and communication. Schleiermacher's ideal of unity is placed in the service of producing relations in line with contemporaneous Romantic attempts to develop new mythological forms of intelligibility.

In the above cases (with the obvious exception of Herder), these thinkers do not articulate their ideas explicitly in relation to Hemsterhuis; at the very least, they nevertheless participate in the explication of a philosophical programme whose contours were shaped by Hemsterhuis's thought. The case of Novalis, however, is different. Novalis's engagement with Hemsterhuis is documented in a series of notes – referred to by scholars as the *Hemsterhuis Studies* (*Hemsterhuis-Studien* [1797]) – that he wrote upon reading his works. Novalis' citations and reflections frame Hemsterhuis as a thinker of stimulation, one in which the mediating figure of the organ becomes an impetus to generate novel relations.[38]

Novalis's first citation of the essay focuses on the figure of an organ not as a mere figure of contact and separation with an object of desire, but as a function that produces 'an eternal stimulus'.[39] Novalis, who was inspired by and critical of Scottish physician John Brown's doctrine of excitability (which posits health as an equilibrium of stimulation), finds in Hemsterhuis a notion of stimulation that is infinite; desire generates relations between subjects and objects that never settle into a static form. According to Novalis, the possibility that an object can constantly expand and exceed the grasp of a subject projects the completion of unity into a perpetually deferred futurity.[40] The horizon of openness to new forms of relationality are not merely applicable to subject–object or object–object relations, but to collective and political forms; thinking with Hemsterhuis, Novalis considers a more general form of the state that would relativise the contemporary state, presumably the status quo, as a 'particular binding of multiple humans' ('eine *besondre* Verbindung mehrerer Menschen'[41]).

Beyond the state, the constraining rituals and ceremonies governing relations among human beings impose a form of structural consistency on human life inimical to the creative expansion of its capacities. Such rituals and ceremonies concern primarily aristocratic forms of sociality; Novalis agrees with Hemsterhuis's critique of the 'point d'honneur' of the aristocracy, a bizarre monstrosity fusing 'Asiatic pomp' with 'Christian humility'. Novalis inserts his own thought in the middle of his translation of Hemsterhuis: 'etiquette is the death of all free

humanity'.[42] Novalis thus seeks in Hemsterhuis's ontology of relations the possibility of a counter-ritualistic space, an experimental ontology facilitating the emergence of different ceremonial rituals that would perturb the given relational form of a specific social order. Suggestive paradigms for ritualistic ceremonies that place transgressive forms of desire – extramarital and incestuous desire, for example – in the service of a reconfiguration of social relations can be found in Novalis's later works, for example in Klingsohr's fairy tale in the novel *Heinrich von Ofterdingen* (1800). Ontology, for Novalis, enables an experimental zone for the reconfiguration of cultural and political ways of being. Novalis thus translates Hemsterhuis's concept of coexistence – 'toute coëxistence est nécessairement la source de rapports' (all coexistence is necessarily the source of relations) – as shared identity: 'all *community* [or *commonality*] is a source of relations' ('Alle *Gemeinschaft* ist Quelle von Verhältnissen').[43] The translation of coexistence into common existence or even communal existence (*gemeinschaftliche Existence*) imbues an ontological property with the light of collective utopian possibility.

Letter on Man and his Relations

Although in epistolary form – which already embeds the generic operations of philosophy in a context of intimacy – the *Letter on Man and his Relations* is the text closest to a holistic representation of Hemsterhuis's thought conveyed through general philosophical propositions and axioms. The later works are written in the form of Socratic dialogues and will contribute to the Romantic image of Hemsterhuis as (in the words of Friedrich Schlegel) 'the only real Socratic philosopher of his age'[44] and a thinker who bound 'philosophy and poetry' together morally.[45]

The *Letter on Man and his Relations* was received and commented upon extensively by two dramatically different thinkers: Diderot and Novalis. In each case, Hemsterhuis initiates a series of reflections on philosophy as a style and practice of thinking. Diderot and Novalis, beyond their respective philosophical inclinations – the Enlightenment materialist and the Romantic transcendental- and nature-philosophical – can be regarded as emblematic for two different paradigmatic forms of reception: in the case of Diderot, the *critical* paradigm; and in the case of Novalis, the *experimental* paradigm.

In his comments on Hemsterhuis's *Letter on Man and his Relations*, Diderot is by turns critical, interrogative, appreciate, inquisitive and speculative. He nevertheless has a distinct idea of what philosophical thought is or should be: its style, its concepts and its norms. In addition to Diderot's materialist objections to Hemsterhuis's immaterialist thought – for example, Diderot's conviction that 'soul' could just be replaced with 'man' or 'animal'[46] – are his reservations concerning the generic operations of philosophy itself. To Hemsterhuis's redefinition of genius as the maximal sensation of relations, one in which a virtual coexistence of ideas can be suddenly and immediately actualised in an act of cognition, Diderot writes: 'It is hardly permitted for a philosopher to use the words genius, mind, wisdom, stupidity without providing precise notions of them'.[47] Diderot senses something foreign, obscure and even scandalous in Hemsterhuis's thought; he often draws attention

to the way in which the Dutch Hemsterhuis deviates from the stylistic norms of philosophical French (with Deleuze, one could say: Hemsterhuis deterritorialises standard academic French in a philosophical minor key). The word *velléité* (velleity), Diderot remarks, 'will always scandalise me'.[48] Diderot's observations, while they were not made readily available until the twentieth century, nevertheless indicate an approach to Hemsterhuis that continues into the future: the legitimation (or de-legitimation) and evaluation of Hemsterhuis according to the manner in which he contributes to recognisable forms of philosophy and coheres with its generic operations.

Novalis takes a different path. In his notes on Hemsterhuis, he writes an introduction to the *Letter on Man and his Relations* in which the history of philosophy is not equated with the progressive development of ever more clear and distinct knowledge, but consists in a persistent grappling with the wonder of one's own being, the eternal mystery of the human. The engagement with Hemsterhuis leads Novalis to the postulation of a philosophical form as yet unknown:

> what if one had not yet ever philosophized, but rather, had only attempted to philosophise? Then the entire history of philosophy up until now would have been nothing less than this, nothing more than a history of attempts at the discovery of philosophising [Entdeckungsversuche *des Philosophirens*].[49]

Hemsterhuis suggests to Novalis the practice of philosophy as a series of attempts or experiments (*Versuche*) to resolve what does not admit of resolution. Philosophy, or the search for philosophy, is primarily a stimulus for thinking. Novalis implies that the desire to solve the unsolvable becomes an experimental generator of particular philosophical forms, of genres of thought that he calls 'philosophemes', while philosophy itself is nothing other than the natural history of philosophemes. But what are the philosophemes of philosophy if one has not yet begun to philosophise? Just as there may be new organs to be developed and exercised, so too might there be new forms of thought, new philosophemes that condition the trajectory of the history of philosophy.

According to Dalia Nassar, Novalis's engagement with Hemsterhuis marks a shift in his thinking towards the centrality of the relation (*rapport*) as an operative concept: the Romantic absolute not as the precognitive or undifferentiated intuition of a totality of being, but as a dynamic process receptive to and generative of relations, as itself relational.[50] In a thought that Novalis designates as being his own in his notes ('von mir'), he writes: '*Understanding* and *Reason* express the organs or capacity for relations'.[51] While relation is one of the *a priori* categories of the understanding for Kant, Novalis, drawing on Hemsterhuis, makes understanding and reason into capacities that can be practised and modified. 'Organ' is the term that allows this plasticity, which extends to postulating future mediating capacities as yet undeveloped – including sensuous capacities, tools and all other media, given Hemsterhuis's capacious definition of the organ *as* a figure of mediation. Novalis muses about the 'seeds of future organs' in addition to the 'perfectibility of organs', asking: 'How can something be made into an organ?'.[52] Hemsterhuis's model of selfhood as separated from an external world mediated by organs, in

contradistinction to Kantian and Fichtean conceptions of the self as either intrinsically active and spontaneous (Kant) or self-positing and auto-affective (Fichte), emphasises receptivity and passivity in its account of relationality. This form of receptivity provides Romantic thinkers with a corrective to the tendencies of Kantian and Fichtean subjectivity, namely to subsume all exteriority into an overarching egological dynamic. For Novalis, receptivity to something external, an extra-subjective other (that is not simply a Fichtean *not-I*), is not opposed to activity, but rather, stimulates activity such that this relationality can be productively channelled into ethical projects: the human being as mystery, but also as an expansive field of possibility.

The anthropological potentiality of Hemsterhuis – his thought as a source for the transformation of the human being – is inextricably linked to his cosmology; his anthropotechnics is also a cosmotechnics in Yuk Hui's sense of the word, or a 'unification between the cosmic order and the moral order through technical activities' (whereby 'technical activities' should be understood in the Romantic sense of experiments with media, aesthetic forms and genres, tools, and organs more broadly conceived).[53] It was not only Novalis who grasped the transformative implications of Hemsterhuis's thought. Herder, like Novalis, saw a critical potential in Hemsterhuis's cosmologically inflected philosophy of history in the *Letter on Man and his Relations*. He included a translation of a passage from the letter in his *Letters Concerning the Study of Theology* (1780) that describes the particular epistemic coherence of specific times, places and peoples in human history, moments in which science, religion and ethical-political life (*Wissenschaft*, *Religion und Gesetzgebung*) are bound together by a consistent discursive logic.[54] In this passage, Hemsterhuis explains that cultural shifts take place in movements akin to elliptical orbits. The idea is revolutionary in a double sense of the term: revolutionary because a new cultural logic can emerge from defunct forms of life and because the emergence of such forms exhibits a cyclical, recurrent pattern. According to this logic, cohesive cultural forms manifest themselves at a given point of time in a 'perihelion', or the point at which a planet is closest to the sun, only to fall into decline – an 'aphelion' – before witnessing the emergence of yet another discursive and cultural paradigm.

While Herder translates Hemsterhuis's thought into the 'eccentric curves'[55] (*exzentrische Krümmen*) of human history, Hölderlin will expand upon such operations in the drafts of *Hyperion*, writing of the 'eccentric pathway' that must be taken to resolve the conflict between self and world. Even Hölderlin's later poetic experiments – most notably his mourning play *Empedocles* – resonate with the philosophy of history in Hemsterhuis's *Letter on Man and his Relations*. Hemsterhuis writes of 'singular men' (p. 124 below) within a given perihelion who stand in tension with the general tendencies of their age, but are incapable of effecting widespread cultural change. Hölderlin's *Empedocles* revisits this problem: in the play, the central character is called upon to embody the tensions of his age (characterised as a specific relation between art and nature, *techne* and *physis*) and gesture towards a new cultural and political order of things. The birth of a new age is supposed to take place in the wake of the death of the tragic hero, after Empedocles casts himself into the fires of Etna. Hölderlin thereby seeks a form of symbolic agency for cultural change that appears foreclosed, or at least improbable, in Hemsterhuis's thought. However, the

apotheosis of the tragic hero – the concretisation of a different (albeit latent) order of things in an individual life and the transmission of this new order into a general ethos – never came to fruition, as Hölderlin abandoned the project. Both Novalis and Hölderlin grapple with the problems indicated in Hemsterhuis's philosophy of history; both respond to the cosmological constraints of this philosophy of history with an affirmation of agency, with the cultivation of aesthetic and ethical practices that aim to push the despondent state of the age – our 'sad aphelia' (p. 124 below) as Hemsterhuis writes – into rejuvenated cultural forms.

Hemsterhuis himself seemed to produce among his most careful readers a condition akin to tarrying in eccentric curves. Although his thought, by virtue of its resuscitation of Socratic and Platonic forms, was recognisably, and even primordially, philosophical, some part of it remained uncomfortable, unassimilable, strange. In the responses to his works, as in the case of Hölderlin and Novalis, one can sometimes find this foreignness acting in the service of a sense of possibility; the figure of Hemsterhuis provokes what Richard Langston calls in reference to the works of critical theorists Oskar Negt and Alexander Kluge 'gravitational thinking' as a form of resistance to dominant and problematic forms of life.[56] Whether or not the figure of Hemsterhuis himself can be drawn away from the cold darkness of a cultural aphelion and into the light of living practices depends upon a continued receptivity to his work: the philosopher not as a static subject whose 'reception history' is already a closed book, but as a further incitement of speculative provocations yet to come.

EARLY WRITINGS

Letter on an Antique Gemstone

from the Cabinet of Mr. Theod. de Smeth, Former President of the Aldermen of the City of Amsterdam, etc. etc. etc.

[No imprint][1]

Sir,[2]

You desire to know what I think of your beautiful amethyst.[3] Although your collection of engraved gemstones is one of the richest and well chosen, I nevertheless believe that this engraving constitutes its most beautiful piece, as much for the excellence of the execution as for the uniqueness and importance of the subject.

On first inspecting the gemstone, the spirit of the design and of the group, the delicacy of the strokes and the perfection of the inherent polish at first indicated a Greek work of the highest rank. Following a little bit more reflection, it was easy to perceive a decided accordance between the taste of the execution we admire in the medals of Himera, Heraclea, Agrigento and Syracuse[4] and the fine and finished contour of the head, of the figure of the horse, and of the fish tails that are found on your amethyst.

We might conclude from this that it originates from Sicily; and this idea is perfectly verified when we consider that dolphins are always the symbol either of Syracuse or of the whole of Sicily.

If we then examine the horse, which is not a seahorse and which seems to rise out of the waves, along with the long pike that can be seen at its side, we will easily see that the artist's aim was to signify a military expedition.

It is universally accepted among antiquarians that horses with a lance denote an expedition, as is evidenced by a number of monuments and ancient medals; and to convince you, Sir, I will mention just two examples. The first is found on the beautiful bas-relief of silver that the greatest connoisseur[5] mentioned in the second volume of his *Recueil d'antiquités*[6] and which represents the advance of the Athenian fleet on Salamis;[7] the other is a unique medallion* from the Cabinet of His Highness the Prince of Orange, representing the expedition that Callinicus Seleucus intended to make against the Parthians.[8]

After this we might conjecture with much reason that, in general, the subject of the engraving is a military expedition planned or executed by some king or tyrant from Sicily, and it may also fit with the famous diversion of Agathocles, the expeditions begun by Hieron and Dionysius the Elder, or Gelon's which was not undertaken.[9]

But something more helps determine this further. If you look carefully at the main figure, you will notice that it is that of a woman. The delicacy of her physiognomy, the part of the bosom spared by the gleam of the amethyst, and those long tresses floating in the air or running down her back, they all dispel any doubt. Her head is surrounded by a diadem, and what must be noted is that she is not in the attitude of a person who wants to ride the horse, but in [the attitude] of a person who wants to restrain it: the position of her legs proves this sufficiently. And indeed, she does not only tighten the reins, but the animal itself rears up and seems to struggle against the hand that restrains it.

At the battle of Himera,[10] as famous as those of Plataea and Marathon, the Carthaginians lost three hundred thousand men with their commander and all their equipment. Fearing that, after such a considerable victory, Gelon would pass straight into Libya, they retreated into the city [with] the few troops that remained to them; they fortified Carthage and immediately sent ambassadors to Syracuse

* Please permit me to give an explanation here. On one side we see the head of Seleucus II, surrounded by a diadem and without a beard, and on the other side a man on horseback, a long pike in hand, and with this inscription ΒΑΣΙΛΕΩΣ ΣΕΛΕΥΚΟΥ ΠΔ (King Seleucus, the year 84 of the Seleucids). This medallion differs from the one that Froelich presents to us in his excellent annals of the Syro-Macedonians, and on it one can find no indication of the era. When compared to the small medal with the Pegasus, which was published for the first time by Haym, as well as to everything that the older authors, Vaillant and Froelich, have said about Seleucus Callinicus Πώγων [bearded], it will follow that Seleucus was defeated in the war against the Parthians in the year 74 or 75; he was then recalled owing to the troubles brought against him by the King of Pergamon in Asia; he made his peace with Attalus and probably with Arsaces; and, after that, at the end of 84 or at the beginning of 85, he renewed the war against the Parthians, in which he was taken prisoner. Arsaces released him and he died in 87.

to implore the victor's mercy. In order to further mitigate his revenge, they turned to Damarete, the wife of Gelon and daughter of Theron, tyrant of Agrigentum,[11] who had played a great role in the success of this war.

Damarete was so successful with her husband that she managed to calm him and persuade him to make peace with the Carthaginians with terms that were quite favourable considering the circumstances in which they found themselves. [In return] they were not ungrateful to the Queen and paid her for her good offices by presenting her with the gift of a crown and a hundred gold talents.

Damarete used this gold to memorialise her work, and minted medals that were known as δαμαρέτια [damareteia] or πεντηκοντάλιτρα [fifty-pounders] to designate their value.

Suppose now, Sir, that such a δαμαρέτιον [damaretion] remained with us: do you believe that the reverse side could represent the subject with more clarity, more majesty, and in a more genuine antique style than this excellent engraving does?

I have taken this detail from Diodorus and partly from Timaeus, quoted by the Scholiast of Pindar.[12] But to tell you everything, there are two more authors who speak of the δαμαρέτιον [damaretion], that is, Hesychius and Pollux;[13] they suggest that these coins were thus named because Damarete minted them from her crockery and her jewellery to provide for the poverty into which Gelon had fallen when this war broke out. This takes us to three points which I ask you to consider.

1. The war was begun and ended in one campaign, according to Herodotus and Diodorus.[14]
2. I do not think that any reasonable man, dealing with a historical fact, would want to place Hesychius and Pollux on the same level as Diodorus.
3. It is not likely that there was a scarcity of money before the battle, since Gelon marched on the camp at Himera with the troops he [already] had, having had no time to raise new levies, and equally so after the battle, since the booty was so considerable that the Agrigentines and their allies embellished their cities with works of great magnificence, and since Gelon gave very expensive presents, not only to the allied cities, but even to the Greek temples.

I must also add, Sir, that you should not believe the antiquarians who have imagined that they dug up the δαμαρέτιον [damaretion], and a lot less when they attribute to our Damarete the medal of Philistis,[15] which is just as well known but much less understood.

I could liven up this letter if I were to detail to you the flawed [ideas] that these gentlemen, not knowing Greek, have uttered on the subject of Damarete and her coins; but as this does not add anything to our subject, I will finish by saying a word on the ΔΑΛΙΩΝ [dalioon]. After the explanation that you have just read, I do not think anyone would take ΔΑΛΙΩΝ for the genitive of Δηλίοι [the Delions] and would thus conclude that the engraving originates from the Isle of Delos.[16] Besides, there are almost no examples found with the name of a people engraved on a gemstone, and I remember only one engraving of very poor Roman execution on which the name of a Roman colony can be found. We must therefore take the word ΔΑΛΙΩΝ for the artist's own name, and the only consideration that would remain would be that one might correct the name ΑΛΛΙΩΝ [allioon], found on

several small engravings by changing the Α into Δ, and the first Λ into Α. But this consideration is not only of little importance, it is also inaccurate, since, for all the engravings with ΑΛΛΙΩΝ, there are none whose execution resembles in the least that of your δαμαρέτιον [dameretion].

I have the honour to be, Sir, your most humble and most obedient servant

F. Hemsterhuis.

The Hague, 5 January 1762

Letter on Sculpture

to Mr Théod. de Smeth, former President of the Aldermen of the City of Amsterdam.[1]

Published in Amsterdam by Marc Michel Rey,[2] 1769.[3]

Publisher's Announcement

When the author of this Letter accorded me the pleasure of receiving it in manuscript, I was so struck with the novelty of the principle which he employs to explain how the soul judges beauty and I found that he applied it so happily to the different subjects used to clarify his thought that, from that moment on, I resolved to publish this little work. I had trouble obtaining the permission from M. Hemsterhuis; and when he at last granted it to me, he only handed his Letter over to me with the express statement that he did not wish to play any part in its printing and that I would be responsible for any success it might have. I accepted these conditions very willingly. The publication of such a short piece of writing did not give me much trouble; and the fact that this Letter gained the approbation of the person to whom it is addressed[4] and whose good taste is very well known to me reassures me of the reception which all lovers of the fine arts will give it.

The bookseller, on his side, neglected nothing in his department. He wanted the font, the paper and the engravings to correspond to the subject in question by offering nothing but what was proper for making an agreeable impression on the reader's eyes, and I am convinced that he will be found to have succeeded.

Sir,

Some time ago you imposed on me the task of communicating to you my ideas on sculpture. At my first moment of leisure, I thought up the means to satisfy you.

Initially, I thought it would be necessary to detail the goal, the principle and the perfection of sculpture, in order to subsequently elaborate the various modifications to which it has been subjected over the centuries and among the different nations; but when I tried to put these ideas down on paper, I found them so linked to general ideas or to ideas particular to other sciences and to other arts that I realised that I must rather speak to you first of the arts in general before returning to sculpture more directly.

The primary goal of all the arts is to imitate nature; the second [is] to enrich nature by producing effects that it does not produce easily, or that it cannot produce.

We must therefore examine, first, how this imitation of nature is achieved; and then what it means to enrich it and to surpass it, which will lead us to knowledge of what is beautiful.

I will confine myself as far as possible to the arts which have a direct relation to the organ of sight, and I shall speak of others only insofar as it is necessary to uncover or demonstrate some universal principle.

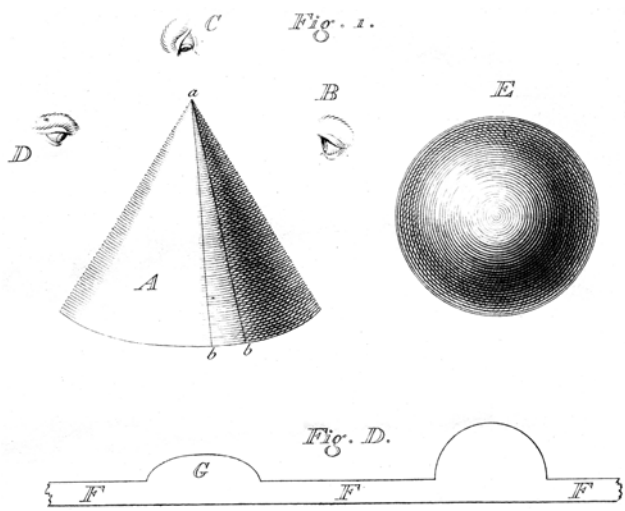
I begin with a reflection which in what follows will appear essential to you for clarifying things that have until now been treated somewhat obscurely; and I will take this reflection as an axiom: it is owing to much practice and the assistance of all our senses at the same time [that] we have managed in some way to essentially distinguish objects from each other when employing only one of our senses. For

example, without the need of touch or hearing, I distinguish by sight alone what is a vase from what is a man, from what is a tree, from what is a sceptre, etc. Regardless of whatever proportions or modifications I am able to make to the figure of the sceptre, it will never give me the idea of a vase without destroying the idea of the sceptre, as well as [that] of others.

From this it followed that we have tacitly divided all visible objects into well-defined classes, both those which are products of art and those which have been produced by nature; and we call a monster any object that does not enter any known class, or that belongs to several classes at the same time, such as some unknown animal, or a centaur, a satyr, etc.

Let us now see to what degree one can succeed in imitating a visible object.

We distinguish visible objects by their apparent contours, by the way in which their figure modifies shadow and light, and finally by their colour; one could say that [all these distinctions reduce] to their contour alone, since colour is merely an accessory quality, and since the modification of light or shade is only the result of an unseen profile.



For example, Fig. 1, in the cone *A* the line *ab* marks the limit of the shade and the light, or of a certain degree of intensity of light or shade, and at the same time [it marks] the contour of a profile which can only be seen from *B*.

When it comes to imitating cone *A*, it is evident that the draughtsman will do so rather imperfectly, since [when he is] positioned at *B*, he sees a triangle, at *C* a circle, at *D* an ellipse, and so on. But the painter, who additionally makes use of the gradation of shadow, thereby gives me the idea of several contours that I cannot [otherwise] see, and his imitation will be all the more perfect, the larger the number of contours he provides me with by this artifice. It follows that in order to perfectly imitate the cone, it is necessary to imitate all the contours – and this can only be

achieved by sculpture. That is enough on [the topic of] imitation for the purpose of the second enquiry I proposed, i.e. what it is to surpass nature by art.

I have often considered with close attention the drawings made by little children, that is, those children who have genius and who amuse themselves by drawing by heart without a teacher's help. One day, one of them drew me a horse, and, in truth, nothing was lacking from it: all the parts were there, even the nails on its shoes – and yet, at the same time, neither the mane nor the tail was in the right place. I placed the child with this drawing before a real horse, and it seemed astonished that I did not perceive the perfect resemblance.

If you please, let us see what was going on in the child's head.

You are aware, Sir, from applying the laws of optics[5] to the structure of our eye, that, in a single moment, we obtain a distinct idea of almost one single visible point alone, which is painted clearly on the retina; thus, if I want to have a distinct idea of an entire object, I must move the axis of the eye along the contours of this object, so that all the points that compose this contour are painted successively at the back of the eye with all the requisite clarity; and then the soul links together all these elementary points and ultimately acquires the idea of the contour as a whole. Now, it is certain that this linking is an action in which the soul employs time, and more time if the eye is less exercised in traversing the objects. The eye of the child, still moving slowly and at random along the contours of the horse, stopped irregularly when anything crossed its path, and [particularly] at the object's most heterogeneous points, and these are also precisely the points, such as the nails of the harness and of the horseshoe, that [the child] best retains and that are represented in the [child's] drawing without regard to their spatial interrelations.

Beginning from this point, I made the following experiment. I drew two vases roughly in the manner you see above, *A* and *B* in Fig. 2. I showed them to several people, and, among others, to someone of very good sense, but who did not even have a mediocre knowledge of the arts. When I asked them which vase was the most beautiful, everyone replied to me that it was vase *A*, and when I asked why to the [person of good sense], he replied, after some reflection, that he was more strongly affected by vase *A* than by vase *B*. I therefore considered the force with which he was affected as the effect of the action of my vases on his soul, and I decomposed this action into intensity and duration. Let us now see what this intensity means for figures *A* and *B*. It is these figures themselves insofar as they are visible quantities: it is all the black lines, *a b c d* etc., not insofar as they are contours, not insofar as they complete and determine an object, not insofar as each folds into the others, joins with the others, or forms a whole with the others in a certain way, but insofar as they contain a certain number of visible points. And, in vases *A* and *B*, the intensity is supposed to be the same – that is, the visible quantity is equal in both cases; consequently, vase *A* acted with more velocity on the soul of this person than vase *B* – that is, he was able to link the visible points together in *A* in a smaller space of time than in *B*; or what comes back to the same: he obtained an idea of *A* as a whole more rapidly than of *B* as a whole.

Does it not follow, Sir, in a rather geometrical manner, that the soul judges as the most beautiful what it can form an idea of in the smallest space of time? But this being so, the soul should therefore prefer a single black dot on a white background to the most beautiful and richest of compositions; and, indeed, if you give a choice between the two to a man enfeebled by long illnesses, he will not hesitate in preferring the point to the composition; but it is the indolence of his organs which causes this judgement. A healthy, tranquil soul, in a well-constituted body, will choose the composition, because it gives him a larger number of ideas at the same time.

Therefore, the soul wants naturally to have a large number of ideas in the smallest possible space of time, and it is from this we have ornaments: otherwise, all ornamentation would be a useless trifle [*hors d'oeuvre*] that insults practice, common sense and nature; for, in vase *A*, what relation is there between the ram's head on the vase's handle, or Hercules' and Hippolytus's combat, and the various flutings that serve to direct the path of the spectator's eye?

It is because of this principle that we like great chords in music, that we like good sonnets in poetry, since the whole sonnet is concentrated in the refrain;[6] and, it is because of this that epigrams are so striking: everything we call sublime in Homer, in Demosthenes, in Cicero, derives from this.

Since much of what I will say in what follows depends on the steadfastness of this principle, you must allow me, Sir, to continue this investigation.

We see, then, that it is by the successive linking of the parts of the object that the soul acquires its first distinct idea of the object. But let us add here that the soul has the faculty of reproducing the idea of the object; and this reproduction, which comes from the side of the soul, proceeds in a manner quite contrary to that of the production of the idea on the side of the object. The latter is born out of the continual succession of the object's composite parts, whereas the former is created

instantaneously in the form of a whole and without any succession of parts – such that if I want to realise this reproduced idea by means of painting, sculpture or poetry, I have to divide it into its parts, which must then succeed one another to represent this whole. It is easy to see that this long process must diminish much of the splendour of the idea. Furthermore, I could show you a large number of examples, taken from orators, poets, painters, sculptors and musicians, [which show] that what we call grand, sublime and of good taste are great wholes whose parts are so artistically composed that the soul can link them together instantly and without effort.* People's judgement will differ only in proportion to their ability to promptly link together the parts of the whole in each art, and in proportion to their moral position in relation to the thing represented; for example, when a man who has escaped shipwreck sees the painting of a shipwreck, he will be more affected than others. When Cicero defends Ligarius,[7] everyone admires him, but Caesar grows pale and shivers – a sure mark that, at these words concerning Pompey and Pharsalus, he had more concentrated and coexisting ideas than the other listeners.

Let us now turn to the representation of the idea that is conceived or reproduced and let us suppose that Raphael wishes to paint a Venus. It is evident that the Venus born in Raphael's mind will be worthy of her altars in Paphos and Knidos;[8] yet, before the painter has achieved half his work, the twentieth Venus will have already passed through his imagination. Perhaps I err in taking this illustrious genius of painting as my example, since it does not seem to me impossible for him to be able to retain a great idea long enough in all its parts and in all its majesty to sketch its contour. But it is at least true that, in the case of an ordinary painter, the head, the arms, the legs of the Venus will belong to as many different Venuses. I wish young people were taught to draw blindfolded; it would be the best way, I believe, of achieving excellent compositions; for it is so true that the eye does more harm than good in the initial sketches that the majority of painters continually erase or add to their drafts – something they would not do if they had represented their first idea in a well-conceived way. The first distinct and well-conceived idea by a man of genius, which is replete with the subject he wants to treat, is not only good, but already [stands] well above its expression.

Here I must make a remark in passing: it is that these initial sketches most please the man of genius and the true connoisseur, and this is for two different reasons: first of all, because they possess much more of that divine vivacity of the first conceived idea than the finished works that have cost so much time; but secondly and principally, because they set in motion the poetic and reproductive faculty of the soul, which instantly finishes and completes what was merely sketched out. And, in this way, [sketches] closely resemble both the art of oratory and poetry, which make use of signs and words instead of pencils and brushes to act exclusively on the reproductive faculty of the soul, and therefore produce effects that are much more considerable than painting or sculpture can provoke, even in their highest perfection. An excellent figure in some great orator or poet makes the heart beat,

* *See remark (*a)* [pp. 74–5 below].

makes our entire constitution turn pale, tremble and shiver – something that will not happen at the sight of the most beautiful painting nor of the most beautiful statue. It seems that the famous Leonardo da Vinci thought in roughly the same way about sketches, when he wished that painters would pay attention to those walls and surfaces coloured at random; their irregular patches often give rise in the mind to landscapes with the richest arrangement.[9] To prove to you that sketches have the same effect in all the arts, I remind you of the *quos ego* … of Virgil,[10] which depicts the vehemence of Neptune's threat much better than anything Virgil could have said in a more energetic manner. Much of the sublime in Cicero's orations occurs in sketch form. In how many plays does an eloquent silence say more than fine verse!* How many military speeches [which] consist in just a few words, often seemingly destitute of meaning, have given rise to and brought to mind strong ideas so as to bring about the most perilous victories!

We have seen that the beautiful in all arts must give us the greatest possible number of ideas in the smallest possible space of time. It follows that the artist is able to achieve the beautiful by two different paths. By means of the finesse and fluency of the contour he can, in a split second, give me, for example, the idea of beauty, but [this is beauty] at rest, as in the Venus de Medici or in your Galatea.[11] However, if he expressed with an equally fine and fluent contour an Andromeda[12] with her hopes and fears visible in all her limbs, he would give me in the same second not only the idea of beauty, but also the idea of Andromeda's being in danger – and this puts in motion not only my admiration, but also my compassion. I well believe that every passion expressed in some figure must decrease a little this fine quality of the contour, which makes our eyes' passage so easy; but at least by adding some action and passion into a figure, there will be more means to concentrate a greater number of ideas into the same time. It seems that Michelangelo, in the group of Hercules and Antaeus,[13] wished to obtain this *optimum* by increasing the *maximum* of the quantity of the ideas through the perfect expression of Hercules' action and Antaeus's passion, rather than by decreasing the *minimum* of time employed to pass over the group, through a fluent contour that would not interrupt the eye's path. And, on the contrary, it seems that Giambologna, in the Rape of the Sabine Women,[14] sought this *optimum* by decreasing the *minimum* of time through the fluency of its contours, which contain almost as many different and well-contrasted limbs as it is possible to imagine in a composition of three figures. When we look at these two pieces from a great distance, that of Hercules and Antaeus comes out much worse than the other, since the magic of expression cannot act at a great distance, and since, because of this, there remains solely the quantity of ideas that a few poorly contrasted limbs can give: the Rape of the Sabine Women will have precisely the opposite effect.

What most destroys this *optimum* in the productions of art is the contradiction to be found in a whole, both between the parts of the contour, and between those [contours] which express actions and passions.

* *See remark (*b)* [pp. 75–6 below].

In order to show you what I call a contradiction in contour, I have copied, in Fig. 3, an engraving from the King of France's collection. Even the most skilled eye has difficulty distinguishing the figure of the anvil from that of the child, that of the rock from Vulcan's leg, and so on. The contours are so indistinct that you never know where you are in trying to produce the idea of the whole. It is true that there are far worse compositions, but I think that this one suffices to elucidate my thought.* – To understand what I call contradiction in expression, you only have to envisage, in the Farnese Hercules,[15] a muscle so excessively tense that [it] disturbs the balance and repose that was Glycon's sole purpose; or, instead, imagine a limb or some physiological trait in the Laocoön group[16] that manifests joy. Finally, if you want a perfect example, particularly of this latter contradiction, you have only to look at your ivory statue of Mars[17] which will explicate my idea to you perfectly.

Artists fall into this fault solely for the reason I already mentioned above: that the soul has need of time and the succession of parts when it wants – by hand or by word – to render, execute or realise a beautiful idea that [the soul] has conceived.

It seems to me that, from all I have just said, it is easy to understand it to be very possible, as far as beauty is concerned, to surpass nature; for it would be a very strange coincidence that would assemble a number of parts such that this *optimum* results, which I desire, and which is analogous – not to the essence of things – but to the effect of the relation that holds between things and the construction of my organs. Change things, [and] the nature of our ideas of the beautiful will remain the same; but if you change the essence of our organs, or the nature of their construction, all of our current ideas of beauty will immediately fall back into nothing.

There is another observation to be made, which, in truth, is rather mortifying, but which proves incontestably that beauty has no reality in itself. Let us take, on the one hand, a group or a vase which has, as far as possible, all the principles of

* *See remark (*c)* [p. 76 below].

ugliness, and let us take another that has all the principles of beauty: both are observed from all sides every day for several consecutive hours. The first effect of this painful experience[18] will be disgust; but when we wish to compare these two objects once more, we shall be amazed to see that our sensitivity to the difference in their degrees of beauty will be extremely diminished, and will even appear to have changed in nature: we will find ourselves somehow indecisive in the choice to be made between these two objects, which, nevertheless, in fact differ completely from each other. The reason for this disgust derives from a property of the soul that I will tell you about another time;[19] but [the reason] for this change in our judgement consists in the fact that the eye, during the experiment, became so practised in passing along the contours of the group whose composition was poor that it completed its path in almost the same space of time as the other object required for a distinct idea. And, on the contrary, by passing over the beautiful object so many times, the eye came to discover every nook and cranny over which it had glided with ease at first sight but which now impede its path. The same experiment will have the same effects in all the arts.

We have learnt by nature to know things [and] by practice to distinguish them; but the idea of the beauty of things is just a necessary consequence of that singular property of the soul which I have just demonstrated.

In concluding this somewhat metaphysical part of my letter, I note in passing that, owing to this property, it seems incontestable that there is something in our soul that loathes all relation to what we call succession or duration.[20]

We have now reached sculpture. Of all the species of imitation of visible things it is the first, because it is the most perfect: painting comes next, or rather there is an intermediary genre between the two, called sculpture in bas-relief: I will treat this briefly at the end of my letter.

It appears to me that the birth of sculpture is prior to that of painting, because it seems to me more natural that, as soon as there is the desire to imitate, one would desire to imitate as a whole, so to speak, rather than imitate an object *en ronde bosse*[21] on a flat surface – for this requires an abstraction far more considerable than one would think at first sight. Moreover, what is certain is that an abstract idea of the contour was absolutely necessary to give rise to drawing and painting. To obtain [the contour] takes a certain perfection, a certain degree of exercise in the organ of sight. However, it appears that touch was the earliest to be perfected, and that, consequently, ideas that came to us by touch could be used much more for imitations than those which came to us by sight. I know well that this sentiment somewhat upsets the veracity of the story of that belle who was the first, charcoal in hand, to secure the shadow of her lover on the wall;[22] but to speak of a wall is already to presuppose architecture, and architecture is an imitative art like the others (and this can be proven); and since all direct imitation of visible things requires knowledge of drawing, it follows that drawing preceded the belle, and that her history is only a pleasantly imagined fable.

When it comes to how old sculpture is, one cannot say. On the one hand, it is claimed that before Daedalus there were schools at Sicyon[23] and elsewhere, and, on the other, it appears that Daedalus was the first to split the lower part of his statues to create legs, so much so that it was said that, because of this, Daedalus's statues

appeared to walk and run.[24] On this basis what an idea do we get of those schools!

Let us drop, then, any investigation into sculpture's origins, and let us see [instead] what spirit presided over it in Asia or among the Egyptians, in the centuries of Phidias and Lysippus,[25] among the Etruscans, the Romans, among the Goths, and finally in our own centuries of the renaissance of the arts.

If we consider the political state of the world in the most remote times, we see nothing but patriarchs and despots, who differed merely in proportion to the amount, often immense, of people and land they had in their power. It was natural that, among these peoples, the grand and the immense constituted the beautiful; and, limited as they were, by imitating nature they thought that they went into the beyond, orienting [nature] towards this immensity; and this had to lead them, not to the truth, but to the marvellous. So, it was the marvellous that became the general spirit of their arts and their sciences, and everything that remains of them to us bears this imprint. Everything resembles these peoples themselves, everything is a great whole without composition or parts. I believe that you will be convinced of this truth by examining even the smallest Egyptian statue – that is, those which remain to us from the earliest antiquity, before the Greek tone began to be relatively manifest in their arts.

When it is said that the Greeks were disciples of the Egyptians, it must be understood, I believe, as follows: the Greeks learned from the Egyptians that there were arts and they learned from them the crude handling of some tools; for in closely examining the oldest coins of Athens, which are apparently extremely exact copies of even older ones, you will find that the engraving is, I confess, as barbarous and bad as it is possible to be; but, even so, you will find no trace of Egyptian taste. This consideration makes me think that the Greeks never copied the works of the Egyptians, and that they can be regarded as if the arts had their genuine origin among them. We shall soon see that nations that begin by copying others attain their perfection by a route very different from that which the Greeks took.

Among the ancient peoples of whom I just spoke, only a small number of despots counted as essential and genuinely active beings; the rest of the people were as nothing. Among the Greeks, divided into small monarchies and small republics, every individual became essential: these small states, so close to one another, waged war continuously and this made the Greeks active, and, as a consequence, their sum of knowledge grew prodigiously. The Greeks' lively activity gave them a refinement of spirit which has no equal; and since the preceding centuries were little enlightened and had therefore furnished few interesting experiments,[26] and since, moreover, the mathematical sciences had scarcely been born, this refinement of spirit needed nourishment that could not be found in a physical world that was hardly yet known, but withdrew into itself, explored the human heart, and there hatched that moral sentiment which was the general spirit of all their sciences and all their arts.

I note here that, in the idea they formed of their Gods, they introduced a completely different spirit than the Egyptians. They regarded their Minerva as wisdom and ascribed it to her by representing her with a look of wisdom; [they regarded] their Hercules as strength by giving him a robust and vigorous look. Among the Egyptians, similar deities were imagined by placing onto the torso of a human

figure a dog's head, a lion's head or a hawk's head, which were the symbols of wisdom and strength. In the figures of their gods, the Egyptians introduced that spirit of the symbol and the marvellous, which made irrational monsters out of them; while the Greeks, for reasons already mentioned – having acquired strong ideas of the independence of a masculine and active virtue, of honour, of patriotism – passed easily and enthusiastically to the deification of their own kind, and consequently admitted no other difference between Gods and men than a degree of perfection. In this way, when they represented Apollo, Minerva or Venus, they had naturally to try to represent the greatest possible beauties; and, as the most common practice of the sculptor consisted in representing divinities, he was obliged by his vocation to delve into nature, so as to make the most scrupulous investigation of the beautiful, and then to surpass [nature].

In their exercises, their baths and their festivals, the Greeks continuously observed nude figures, whose beauties were perfected by these very exercises and baths; and please note that since agility and strength carried off the prizes in all these exercises, it is quite natural that when the artists were choosing a general proportion for their figures, they gave the prize to that proportion that accorded with strength and agility – that is, the mean.

You will soon see that a people who begin by copying another will hardly make that choice. It was therefore by necessity that the Greeks – after having exhausted the beauties of nature – succeeded in finding that beautiful ideal on the basis of which they produced so many inimitable masterpieces. A certain mark that these masterpieces are their creation is their excellence in the composition of monsters. Look at their centaurs, their nereids, their satyrs, which are all Greek creations, and tell me whether any [other] age or any nation ever went beyond the mediocre in this genre, whereas [the Greeks] raised it to the highest perfection.

As far as the Etruscans are concerned, it is indubitable from a large number of their monuments which remain to us that they were copyists of the Egyptians. We know so little of these people that it is impossible to conclude anything about their arts from their history, their character, or their political affairs; but it is equally unmistakable that they were very civilised and that they had a distinctive taste, which says a lot about a people: both [characteristics] appear in their vases and their engraved stones, to which they devoted infinite care. Although we do not know much about their religion or their gods, it seems at least, by the figures found on their vases, that their heaven was not so richly furnished in such a charming and representable way as it was for the Greeks, since these figures commonly represent only absurd monsters and barbarous compositions, which pertain to an emblematic and superstitious religion. It follows from this that they did not feel the same necessity to look for the beautiful beyond nature; and, moreover, by working from Egyptian examples and continually confronting them with nature, they became habituated to measuring the distance between these works and nature, and therefore they considered nature as a limit and an end of perfection beyond which there was nothing. From thence it follows that they took servile imitation as their only rule, and this appears clearly in the dryness that is noticeable in all their creations. Now, when the aim is servile imitation, one wants to imitate objects that are most imitable; that is, one prefers to imitate a body where the muscles are visible more than a body

with smooth, polished skin: hence, they took thin, lean and thus very long figures as models. What they gained by the choice of this proportion was a truly admirable knowledge of anatomy. One of the two magnificent engravings kept in the Prince of Orange's collection[27] will certainly convince you. It represents Achilles, who bends to take up his quiver: the polish was never pushed further by the Greeks than in this engraving. It is poorly reproduced in the book by the illustrious Comte de Caylus,[28] to whom it once belonged. Much has been said of the beauty of Etruscan vases, and even the elegance of their contour; but when examining these contours with all the requisite attention, you will often find that everywhere there is a little lacking, and it is precisely this small something that marks out a slavish, imitative, limited and fearful spirit.

Among the Romans, as copyists, one generally finds merely a taste mixed from the Greek* and the Etruscan; but the tone which appears to me to reign in those works that are truly theirs seems to be due to the gravity and dryness of their character at the time of the Republic. You are well aware, Sir, that if it were a question of judging the Romans on what remains of their oratory, poetry and architecture, we would judge them differently, since these arts were more analogous to their political condition – that is, the art of oratory in the last days of the Republic, and poetry and architecture under the Emperors.

For what concerns the Goths, I have very little to say to you. What remains of their sculpture closely resembles the horse [drawn] by the child that I mentioned to you as an example. In speaking of the arts, I have said scarcely anything about architecture: in its principle it is an imitation† – but in its perfection it is a completely human creation. – I am mentioning it just in relation to the Goths, since all that remains of them belongs almost exclusively to this art. To judge them from this, it may be said that they considered a whole merely as an assemblage of parts, that, as far as possible, they added ornaments to each part and that they imagined that by doing so they had adorned the whole. This is, once more, the reasoning of my child.

After the decay of the Roman Empire, the arts would have been done for, if the abuse of our religion – altering its simplicity and purity – had not possessed something to resuscitate them. The peoples that had just devastated Europe had nothing in their character, in their political condition or in their religion that could lead them rapidly towards a culture of fine arts. The Christian religion called for temples and images, but it was no longer Apollos, Bacchus or Venus that was to be represented, rather the dead in purgatory, saints in torture, penitents or martyrs.

To make an Apollo, the Greek artist passed the limits of nature by means of the beautiful ideal, and he really represented gods who were, according to his ideas, representable; but the Christian artist had such an abstract idea of those divine beings he had to represent – an idea so disengaged from the senses – that all real imitation was absurd, and therefore he had no other choice than to represent them as they had been visible on Earth in times past. What further prevented the artist

* *See remark (*d)* [p. 76 below].

† *See remark (*e)* [pp. 76–7 below].

from plainly arriving at the beauty of nature was the spirit of Christian humility, which led him, not to the simple truth, but to coarse, popular truth; and since he had, on all occasions, to represent the passions of martyrs, penitents and the deceased, he needed good knowledge, more or less, of their effects on the muscles. Starving beggars served as models for him, and, accustomed as he was to studying these emaciated bodies for depicting his saints and martyrs, the general proportion of his figures became excessively long, and the tone of his work [became] dry; and this is the reason why there is an air of resemblance between good Etruscan works and works from the early days of our age of the renaissance of the arts.

Sculpture thus existed [at that time], in truth, but with a sadder and more troubled air than it had possessed previously in the beautiful centuries of Athens.

If we follow its course to the end, we will see that when religion became political, the Church powerful, and priest [became] kings, all the arts which had some relation to worship inevitably gained from this. Emulation was necessarily born out of wealth, and it seems probable that when the beautiful came to be desired, it was sought for a long time in the richness of the ornament; but ornaments affixed by unskilled hands do not form [an integral] part of a decorated object, and when these decorated objects are compared to the simple beauties of the Greeks, the veil falls.

We began to copy the Greeks. We imitated their gods by depicting saints. Apollo was restored with the rays of his glory and, under another name, worshipped once more. Imitation of the Ancients made immense progress, and it may be said that Michelangelo, that astonishing genius who, [if] born in Athens, would have been worthy of her and of Pericles, carried sculpture to a degree just below what it once had attained, when, in its splendour, it formed the delights of Greece. In my opinion, this superior rank among the Greeks must not be sought in the expression of actions and passions, since, in this respect, the moderns cede nothing to their masters, but rather in the fine and fluent quality of the contour. If you were to ask me the reason for this, I think it could be found, in large part, in the general spirit of our century, which is the spirit of symmetry, or the geometric spirit, and which, in truth, harms that daring freedom that is the soul of the arts and to which the general spirit of the Greek age was more favourable. To complete the comparison between Greek and modern artists, I pray you to pay attention to depictions of the Devil, which is the only subject that is genuinely ours and which we were not able to take from the Ancients. Our artists treat him not only in the most hideous manner, but also in the most ridiculous. If the Greeks had treated the same subject, they would have given him a constant figure – one which would have impressed, would have piqued interest, and would have had the features of Vondel's or Milton's Lucifer.[29] It is true that in this respect poets have a tremendous advantage over sculptors and painters, and this is for two reasons. First, when representing the Devil, they can attribute to him the gigantesque, and take the sons of the earth, the Cyclopes, the infernal deities etc. from the Ancients; and secondly, they have the ability to make [Lucifer] act, and it is then that the enormity of his actions and the grandeur of what surrounds him evoke the idea of that being who fought Michael on the plains of Heaven.

Now, Sir, I am going to consider sculpture more particularly, so as to elaborate on how it differs from the other arts, the limits that its nature seems to prescribe, and the choice of appropriate subjects it requires.

It is divided into two parts, namely sculpture *en ronde bosse* and [sculpture] in bas-relief. Only the first is a distinct art. It represents perfectly what it wants to represent by representing the entire contour and the entire solidity of its subject. It satisfies two senses at one and the same time, touch and sight.[30] One must not look to the plastic [arts][31] to locate [sculpture's] limits and principles. In the plastic [arts], one makes use of materials that are so easy to handle that they can possess the same breadth of composition as painting. In painting, I can create a scene containing twenty rich compositions which together form one large, overall composition. But, since in works of sculpture, metal, marble, or some other precious material is ordinarily employed, and since, furthermore, this art demands much more considerable effort, and since it has completely other difficulties that need to be overcome than painting, so it will never be able to encompass as many subjects. Sculpture usually imitates the subjects it deals with by giving them their natural size; sometimes it makes them larger. Hence, the price and the hardness of the material obliges [the sculptor] to find more unity, and in this way [sculpture] is naturally limited to the representation of a simple figure, or to a composition of a few very simplified figures. Hence, unity or simplicity is a necessary principle for it.[32] But since, by its nature, the beauty of its creations shines from all sides and in all possible profiles, it wants to – and has to – please from afar as well as from nearby, and perhaps [pleases] even more [from afar]. For this reason I think it is better [in sculpture] to try to perfect the *minimum* of time I employ to produce the idea of the object by means of the fluency and excellence of its contours than to enlarge the *maximum* of the quantity of ideas by a perfect expression of actions and passions. And that being the case, it follows that serenity and majesty are properly appropriate to it. With regard to the subjects that sculpture can treat, there are two factors that chiefly restrict their number. The first is that the idea given to me by some representation of a subject must either be analogous to or conform to the idea that the reproductive faculty of my soul would have given me of the same subject, if I had wished to think it without representation. The second is that sculpture should appeal to the most remote posterity and therefore must speak the language of nature: from which it follows that several subjects drawn from the Holy Scripture, above all those dealing with the Supreme Being, as well as a large number of personified qualities, vices or virtues, and, finally, all drapery or clothing which belong to some particular century or nation, are to be proscribed in sculpture.

Thus, if the unity or simplicity of the subject, and the fluent and fine quality of the overall contour are fundamental principles in sculpture, it will be necessary, when the sculptor wants to attain the greatest perfection in his art in the easiest way, to represent a single figure. It must be beautiful, almost at rest, in a natural attitude; it must present itself with grace; it must be turned in such a way that I see as many different parts of its body as possible at the same time; there must be a little drapery in this composition which serves to make it decent, and the nobly ordered folds of which contribute to increase the number of my ideas and to contrast with the rounded contour of the flesh. And for achieving a more striking contrast, the artist must join to it some part of a column, a vase or a pedestal, whose regularity will make the beautiful irregularity of the figure even more apparent. Finally, with

all these qualities, the overall contour in every profile must be of about the same length and, at the same time, the shortest possible.

If the artist wishes to produce a group, he must choose a subject that impresses and which has majesty and grandeur; its figures must differ, as far as possible, in gender, in age and in proportion; the action must be single and simple, and all the parts of the group must help to reinforce it; in every profile, I must see as many limbs or protruding parts in a natural attitude as possible. If [the artist] wants to excite horror or terror, he must temper it by the beauty of some piquant figure which attracts me; and the disgusting must never be part of his subject. I remember having seen a group that represented Tereus tearing out Philomela's tongue.[33] What an idea for sculpture! A woman can cry and still be beautiful; but Tereus's action causes writhing contortions. Painting can sometimes make use of the disgusting to augment horror, for its compositions are large enough to mitigate it elsewhere, but within the limits of a group sculpture [the horror] dominates the whole. In the group of Amphion,[34] Dirce is charming, even though attached to the horns of a bull. Finally, the artist may be a painter as much as he wants with respect to the expression of the action, but he must be a sculptor to equally enrich every profile as far as possible and, by measuring the complete contour of each profile, [ensure] they are all found to be of almost equal length and, at the same time, as short as possible.

You will say that, on this basis, there will hardly be a perfect, large group in sculpture. I think so, and I dare to add that the two masterpieces of those illustrious Rhodians – I refer to the Laocoön[35] and the Amphion – belong much more to painting than to sculpture.* Moreover, we can hardly accuse the Greeks of this defect; but we can say that our modern sculptors are too much painters, as apparently the Greek painters were too much sculptors.

As for sculpture in bas-relief, it is properly a kind of difficult painting. If the artist, for example, wants to represent sphere *E*, fig. D [p. 61 above], on plane *F*, and if he puts half of the sphere on this plane, his imitation will be perfect, and he will be a sculptor *en ronde bosse*; but he must, as one sees in *G*, render by false contours the decrease in the shadows caused by the true contours of the real sphere. A profound geometry is needed to make a piece of some size in this genre; for when I mix true contours and protruding parts, I am working *en ronde bosse*.

Scarcely any genuine pieces in bas-relief can be found other than those on medals and cameos, or on works of intaglio engraving: this latter art only uses a slightly elevated relief, for as soon as one wants to execute in it parts that protrude too much, one causes confusion or destroys the fineness of the contour. I well know that many Greek artists, and, among us, Messrs. Natter,[36] Costanzi[37] and others, have often fallen into this error; but then they have preferred to amaze by some difficult execution, instead of appealing to real connoisseurs by wisely remaining within the natural bounds of their art.

As this art has been fully treated by the Comte de Caylus and M. Mariette,[38] and as your collection, truly magnificent as it is, has taught you more than I am able to

* *See remark (*f)* [p. 77 below].

tell you, I have too much abused your patience, and thus I finish my letter assuring you of the deep devotion with which I am, Sir, your most humble and obedient servant

Hemsterhuis, the Son.

The Hague, 20 November 1765.

Remarks

*Remark (*a)*

For example, speaking in the *Iliad* of the battle of the Gods, Homer says:

> Ἀμφὶ δὲ σάλπιγξεν μέγας οὐρανος οὔλυμπος τε, …
> Ἔδδεισεν δ'ὑπένερθεν ἄναξ ἐνέρων Ἀϊδωνεύς·
> Δείσας δ'ἐκ θρόνου ἆλτο, καὶ ἴαχε, μή οἱ ὕπερθε
> Γαῖαν ἀναῤῥήξειε Ποσειδάων ἐνοσίχθων,
> Οἰκία δὲ θνητοῖσι καὶ ἀθανάτοισι φανείη,
> Σμερδαλέ', εὐρώεντα, τά τε στυγέουσι θεοί περ.[39]

Must you not admit that this admirable scene contains the greatest possible whole? In a few lines, Homer does not only depict the parts of the Universe most worthy of respect, but he puts them into a terrible motion, and he does so in a very natural way. It is true that you can find in Virgil and even in Homer more accomplished scenes and ones depicted with more delicacy; but none which embrace so many great objects at once. They are like placing Rosalba's miniatures[40] next to Michelangelo's Last Judgement.

Here are some compositions that are frankly far less rich, but which are more striking because of the great distance between the composite ideas, which are nevertheless joined together without any effort.

In speaking of Caesar and Pompey, Lucan says:

> Quis justius induit arma,
> Scire nefas: magno se judice quisque tuetur:
> Victrix causa Diis placuit, sed victa Catoni.[41]

Thus, Cato and the Gods approximate to one another without any absurdity or contradiction. I cannot use here Brebeuf's translation which spoils this beautiful fragment in his desire to reinforce it. He translates

> 'The Gods serve Cesar, and Cato follows Pompey.'[42]

Lucan only wished to bring Cato closer to the Gods, which is very impressive and very wise: but Brebeuf begins by putting the Gods far below Caesar, then he puts Cato into Pompey's retinue, and therefore into the background, and this throws the

scene into a horrible confusion. Cato, who is in Lucan the dominant party, becomes in Brebeuf the least interesting party of them all. I took this passage of Lucan expressly to compare it with another of the same genre and by the same author.

When he was near Marseille, Caesar wanted to cut down a sacred wood. After portraying the dark horror of the forest inhabited by demons so terrifying

> That the Druid feared by approaching these places,
> To see what he adores, and to find his Gods there.[43]

Lucan says that when Caesar's soldiers did not dare touch these trees, he himself took up an axe, and showed them the way, while telling them:

> Credite me fecisse nefas. Tunc paruit omnis
> Imperiis non sublato secura pavore
> Turba, sed expensa Superorum ac Caesaris ira.[44]

This fragment is more valuable than the previous one. In the first, by comparing Cato to the Gods, Lucan only considers the way in which they judge a cause differently – which brings together just two ideas, although two that are, in truth, far removed [from each other]; but here Caesar's soldiers, when attempting to weigh the real effects of his anger against that of the gods, consider Caesar's more terrible – and this is more effective. Moreover, in the first passage, the case remains undecided, and Lucan passes on the trouble of a very difficult judgement to his reader. It is only Cato's infinite reputation that here brings about the approximation of the two natural ideas; for, by replacing this great personage with some unknown name, such as Piso, Milo, etc.,[45] the distance between the two ideas would become greater, but also Lucan would have missed the aim of this verse; he would never have succeeded at any approximation. In the second fragment, there are competent judges who decide the question, and, so as to make this decision even more vivid, Lucan uses the figure of some scales, and thus it seems that we see them with our own eyes tilting to Caesar's side. If you replace Caesar with the name of one of his captains, this fragment will still have a similar effect. Neither can I use Brebeuf's translation here, where this beautiful idea is pitifully maimed. It is absolutely impossible to translate the sublime of this order and this kind. To copy something well, I must not only [know] what the first author of the work made, but I must make use of the same tools and of the same material as he did. And in the arts where one uses signs and words, the expression of a thought acts on the reproductive faculty of the soul. Now suppose the minds of the author and the translator are turned in exactly the same direction, yet the latter uses totally different tools and materials. Add to this that the rhythm, the velocity of sound and the flow of a happy series of consonants and vowels have their origin in the primitive idea and are part of its essence.

*Remark (*b)*

In Euripides' tragedy *Hecuba*, Talthybius comes to visit this unfortunate queen to announce new misfortunes to her. She has just lost her husband, her children, her

crown, her country and her freedom. Talthybius asks after her to her maids, and they show her lying on her back on the ground, with her head wrapped in a cloth. Horrified at this spectacle, Talthybius says: ὦ Ζεῦ, τί λέξω; 'O Jupiter, what shall I say?'[46] This sketch gives a vivid sense of the nothingness of the human condition, without Talthybius needing to reinforce it with an impiety by adding:

> … πότερα σ'ἀνθρώπους ὁρᾷν,
> Ἤ δόξαν ἄλλως τήνδε κεκτῆσθαι μάτην,
> Ψευδῆ δοκοῦντας δαιμόνων εἶναι γένος,
> Τύχην δὲ πάντα τἀν βροτοῖς ἐπισκοπεῖν;[47]

I give this example because Euripides liked to provide both sketches and descriptions at the same time.

*Remark (*c)*

There are objects whose contours are all indistinct, but which nevertheless please very much. These are the great works of mosaic that are for the most part developments of polyhedrons. They can be compared to a musical concert, and they are not so much compositions of parts as compositions of wholes. In these kinds of works, each part can be the principal part and pertain to several completely different wholes, which are regular and perfect, and the most imperceptible movement of the eye will effect a change of the idea of the whole and this produces an astonishing wealth of objects.

*Remark (*d)*

In this mixture, the Etruscan dominates, but in the creations of the Sicilians one could note a different mixture of the Greek and the Etruscan, where the Greek greatly dominates.

*Remark (*e)*

When men needed to protect themselves from the injuries of the weather, from a burning sun or from excessive cold, they possessed only two means to achieve it, i.e. either to hide in caves or to take refuge under the thick foliage of trees. It is natural that, when perfecting their ideas, multiplying their pleasures, their desires and their needs, and thus desiring a building, they should take one of these means as a model; it is again only natural that, in climates where only caves could suffice to protect them from the heat of the sun or the harshness of winter, caves became the principle of architecture – from which arose the huts of the Hottentots and the peoples of the North, and finally the Pyramids of Egypt. But [it is only natural] that in temperate climates, where the shade of the foliage provides sufficient guarantee against heat's inconveniences, men took these trees as the principle of their way of construction; and when one follows the path that they necessarily took to by nature, it is to be seen that, in a very short time, nature supplied them with the sublime

ideas of beautiful architecture, and even taught them the distinction between all the parts of the different orders.

*Remark (*f)*

It must be remarked, however, that in groups or statues made from ivory, which are small, it is acceptable to be a bit more of a painter, because we observe them from a little closer, and therefore we bring out more expression in them. Moreover, when speaking of the groups of Laocoön and Amphion, I consider them as belonging uniquely to sculpture *en ronde bosse*: if they were to be considered as having been constructed to decorate niches, they will approach the genre of bas-reliefs, and consequently painting, and so we must judge them almost solely on the principles of that art, since the great distance which these two pieces require to be [properly] seen implies that almost only one point of view is suitable.

Letter on Desires

to Mr Théod. de Smeth,[1]

Published in Paris, 1770.[2]

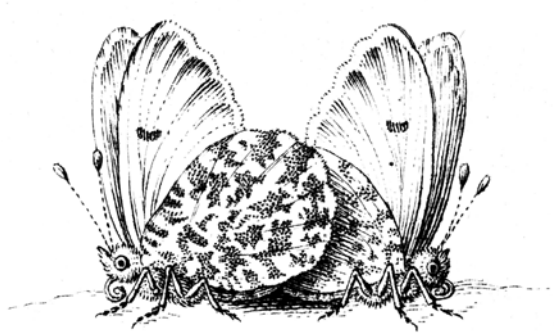
Propria rate pellimus undas.
– Manilius.[3]

Publisher's Announcement

Since some people were welcoming enough to a small pamphlet that lately appeared under the title of *Letter on Sculpture*, we here provide the continuation from a copy in the author's hand, under the title, *Letter on Desires*.

The original has been followed to the smallest detail, both in the drawings of the vignettes and in the spelling; and, assuredly, the author will have no reason to complain in this regard.

For the rest, we profess the hope that this piece, which is too short to bore, will please with a philosophical tone that conforms sufficiently to the taste of the age.



Sir,

In the Letter which I had the honour to address to you on Sculpture some time ago, I promised to write to you concerning a property of the soul, which, after long contemplation of a desired object, gives birth to disgust.[4]

I fulfil my promise all the more willingly as it will serve in some manner as a continuation and clarification of my previous [letter].

The property in question here is strongly analogous to the attractive force that we constantly observe in what we call matter. But before passing to an investigation of this property, I must confess to you my perfect ignorance of what matter is by adding that, to me, it seems scarcely probable that it is what our rigorous physicists want us to believe, since the ideas of the attributes that we assume in it result only from the relation which exists between some effects and our organs.

I think I have proven to you in my preceding [letter][5] that the soul always seeks the greatest possible number of ideas in the smallest possible space of time, and that what prevents it from being satisfied in this respect lies in the necessity by which it is compelled to use organs and media, and to act by way of a succession of time and parts.[6]

If the soul could be affected by an object without the means of organs, the time it would take for it to form the idea would be reduced to precisely nothing.

If the object were such that the soul could be affected by the sum total of the essence of this object, the number of ideas would become absolutely infinite. And were these two cases to be assumed together, the totality or the sum of these ideas would represent the sum total of the object without any means, and without any succession of time or parts: or rather, this object would be united in the most intimate and the most perfect way to the essence of the soul; and, in this case, one could say that the soul enjoyed this object in the most perfect manner.

If I suppose the soul and the object to be two homogeneous substances, the enjoyment could be reciprocal and perfect – that is, the two substances would be so much one substance alone that all idea of duality would be destroyed. And, in fact, if we suppose two homogeneous or heterogeneous substances endowed with certain attributes, all the relations of these two substances together do not yet give me the idea that we attach to the word joy; and, in order to conceive these two substances as enjoying each other reciprocally, one must suppose them to be united and to be together but one being.

Thus, the absolute goal of the soul, when it desires, is the most intimate and perfect union of its essence with that of the desired object. But, since, in the current state in which the soul is found, it is almost impossible to reach this union except by means of organs, [then] it is equally impossible to obtain that perfect enjoyment of anything at all.

In regard to the objects that the soul may desire, they are either homogeneous or heterogeneous to its essence; and the vivacity of desires, or rather the degree of the attractive force, will be consistently measured by the degree of homogeneity of the thing desired; and this degree of homogeneity consists in the degree of possibility of a perfect union.

For example, one will love a beautiful statue less than one's friend, one's friend less than one's mistress, and one's mistress less than the Supreme Being. It is because of this that religion makes greater enthusiasts than love, love more than friendship, and friendship more than desire for purely material things.

When I contemplate some beautiful thing, e.g. a beautiful statue, I actually search solely to unite my being, my essence, with this being so heterogeneous [to me]; but after numerous contemplations I feel myself disgusted with the statue, and this disgust arises solely from the tacit reflection I make on the impossibility of a perfect union.

This experience, which is very real and which will perhaps be further clarified in what follows, is in truth only properly intelligible to those souls alone who, fortunately or unfortunately, join the finest and most exquisite tact to this enormous internal elasticity that makes them love and desire furiously and sense [things] excessively – that is, to those souls who are either modified or disposed in such a way that their attractive force finds as few obstacles [as possible] in its tendency towards this goal.

In the case of friendship, the impossibility of union appears less great; and in love, nature deceives us for an instant; but the disgust which follows evidently demonstrates the imperfection of a union that was so complete in appearance.*

In the case of love of God, that is, in mental contemplation of the Great Being, disgust cannot arise, since we do not perceive an absolute impossibility of the desired union. Homogeneity seems perfect. We know his existence either by the internal sentiment that he has put in our soul, or very assuredly by exact demonstrations and ample proof. When it comes to [God's] attributes, it is our own reason, and often our imagination, that creates them:† but when we consider this immense Being philosophically, he is a simple and infinite Being.

Let us look again, if you please, at the pure effects of nature on great passions. It is, without doubt, no invention of men nor by way of education that we have learned to embrace our parents and our friends, to hold them in our arms with a force proportionate to our love. Look at this tender mother with her child on her knees: look how she presses him against her bosom, as she inundates him with kisses.‡ Examine the mechanism of this kiss which is so admirably depicted by

* *Omne animal triste post coïtum.*[7]

† Ὥσπερ δὲ καὶ τὰ εἴδῃ ἑαυτοῖς ἀφομοιοῦσιν οἱ ἄνθρωποι ὕτω καὶ τοὺς βίους τῶν Θεῶν.[8]

‡ *Et tenet adsuctis humectans oscula labris.*[9]

Lucretius[10] and you will see that the soul seeks every means to unite itself essentially with the object it desires.

I believe it is quite evident from what I have just said that the soul's desire is a tendency towards perfect and intimate union with the essence of the desired object; and, further, that the soul properly tends to the perfect and intimate union with all that is outside of it.* That is, its attractive quality is universal,† as it is in each part of what we call matter, and, therefore, it always desires; for when an obstacle that thwarts its tendency towards its most desired goal is placed before it, it will immediately tend towards a less desired object. Dionysius still enjoyed himself at Corinth.[11]

We have seen, in general, that the soul tends to a union with everything that is outside of it, and that it always desires the object with which this union is least impossible.

Now, it would be extremely interesting to investigate the means by which the soul activates this tendency to try to reach the goal it proposes.

The soul, which is eternal by its essence, which repudiates any relation to what we call succession and duration,‡ inhabits a body which seems completely heterogeneous to the nature of the soul; its connection with this body is very imperfect, for, while you were reading these lines, and before I called your attention to it, you had no perception, no idea whatsoever of your legs, of your arms, or of any other part of your body; and the non-existence of all these parts would not for a minute make any change whatever to the *You* who thinks. After I pointed this out, your soul did review your limbs, and, if you were to observe [this review] well, [you would see that it occurred] in disorder, not knowing what to attend to first.

The knowledge the soul has of its body is not superior to that which it has of any other body that surrounds it; for it has no idea of it except by the external action of the body upon its own organs. In respect to internal sensations, they pertain to the nature of the soul, and not at all to the nature of the body; at most, they are only modifications of the body which cause these sensations.

The body is almost as alien to the soul as any other body, insofar as it executes the soul's will; for when taking up a stick, the effect of the soul's velleity is manifested just as much at the end of the stick as at the end of one's fingers.

Insofar as the body is the vehicle of generic matter which transmits some action from an external object to the soul so as to form the idea of that object, the body is a passive instrument that the soul must make use of.

This describes man's composition. But what is most admirable in this composition is, on the one hand, the faculty of producing a composition which resembles it by means of the two sexes; and, on the other, that of being able to regulate this force, not by annihilating it or by diminishing its intensity (which would be

* Τοῦ ὅλου οὖν τῇ ἐπιθυμίᾳ καὶ διώξει Ἔρως ὄνομα – says Aristophanes in Plato's *Symposium*.[12]

† *Inest ingenio humano motus quidam arcanus, et tacita inclinatio in amorem aliorum: qui si non insumatur in unum vel paucos, naturaliter se diffundit in plures*. Bacon Verulam.[13]

‡ This claim is a necessary consequence of the property that is demonstrated in the *Letter on Sculpture*; but it can be demonstrated in a direct manner, as I will show elsewhere.[14]

impossible), but by hindering its action by means of obstacles, and by diverting it from one object towards another object.

This divine faculty is the basis of all morality; and if for a moment we compare it to what we call inertia in matter, we would almost suspect that the idea we commonly hold of this inertia,* whose energy must counterbalance all of the attractive force of the sensible universe, is not particularly accurate.[15]

But let us return to the means the soul can use to approach this desired union. There are two of them above all that merit detailed examination from various angles: one is physical, the other intellectual.

There is no one among those who mix reflecting and thinking who is not convinced by his own experience of the singular correspondence that exists between the generative parts [of our body] and our ideas; how much certain ideas cause changes in these parts, and how quickly a contrary change in these parts makes such ideas vanish.

I will not conclude anything from that singular defect which fixes the moment of union of male and female. I will only say that of all the physical means that the soul uses in its tendency towards a union of essence, this is the one which not only leads it much further than any other, but still more (and this is very remarkable) is the one that is most manifest in all its desires. I appeal to those young and vigorous fanatics, whose passions in religion, in love, in friendship, or in that desire for purely material things, are extreme; and I wager that, if ever they reflected in their moments of fervour on what species their desires were, every one of them would more or less experience it in those parts which Plato had already identified as the seat of concupiscence.[16]

To prove to you the truth of this observation, consider, I pray you, the foolish abuses of all kinds that, in every century, the corruption of manners has brought about in respect to this means which the Supreme Being appears to have entrusted for the continuation of creation.

I do not speak of pederasty only, and of those monstrous mixtures of men and animals which occur in those climates whose conditions excite this means the most; but also of those strange furies of unbridled voluptuousness on marble and bronze – as Pliny[17] and others report them to us.†

I am not denying the brutal extravagance of these abuses; but at least it is evident that these abuses would naturally arise from this universal attractive force, if the soul did not at the same time have the faculty of regulating this force, or [they would naturally arise] if, by corruption or imbecility, it abandoned these reins.

With respect to the second means, which is intellectual, let us follow the same method, and let us try to discover it in our most common experiences.

* This inertia does more than counterbalance the attractive forces of the sensible universe: for the surplus of its force over this attraction constitutes the generative principle of the universe; it is the surplus of the force of the directive faculty in the soul over its attractive force which constitutes moral beings, morality and virtue.

† Ἐπεὶ καὶ ἀγαλμάτων καλῶν ἀκούω πολλοὺς ἐραστὰς γενέσθαι, μὴ μόνον τοῦ δημιουργοῦ τὴν τέχνην μὴ βλάπτοντας, ἀλλὰ καὶ τῷ περὶ αὐτὰ πάθει τὴν ἔμψυχον ἡδονὴν τῷ ἔργῳ προστιθέντας. Julian.[18]

When we enter into a group of several people, all unknown to us, there is ordinarily one to whom we address ourselves, at whose side we stay, and with whom we carry on a conversation in preference to all the others. The reason for choosing this person is in the principle of the greatest number of ideas in the smallest space of time; and that of affinity, in the principle of the attractive force. We will converse with this person on all kinds of subjects. We will endeavour to become acquainted in as many ways as is possible for us; and, having already been informed by the first principle, which was activated by her face, the sound of her voice, her attitude, we shall speak to her of some affairs which concern us, or of the particular way we are thinking about well-known things. If this person thinks in the same way, and, what is more, if she strengthens our way of thinking with new reasons, a homogeneity is manifest. If she thinks differently, we strive either to think like her or make her think like us. Next, we talk to her of our passions, our desires, and finally of our moral situation. She helps us; she consoles us; she judges us: and, as she very certainly finds herself in a situation different from ours, she gives us new perspectives on things which concern us most. We follow these views and we are reassured.

This is the common course of an affinity which is transformed into friendship.

Add to this the eagerness of someone who strives to perfect her homogeneity with her dog or with some other favourite animal; and see with what caresses she accompanies a well-understood word, or [effectuates] the acquisition of some idea they hold in common.

It is evident from what I have just said that the second means of endeavouring to attain a union of essence consists in making the desired object more homogeneous, and in making it more perceptible to us from a greater number of viewpoints – that is, in increasing the possibility of the desired union.

It is evident too that the more perfect these lovers or these friends are, the more extensive their knowledge, the purer their manners and the stronger and loftier their souls, then the livelier this attraction will be, [and] the more they will succeed in mutually perfecting each other by way of mutual interests.

This is precisely the description of love Socrates gives in Xenophon's *Symposium*.[19] Socrates' saintliness shields him and his like from the blasphemies of impure poets. But it will not be out of place to further clarify in a few words the ideas we have gained of love or friendship among the Greeks.

Love and friendship had pretty much the same meaning for them as it does for us; but their tact or their extreme sensitivity gave an intensity to all their passions and to all their desires that we cannot conceive, and consequently [it gave] to their virtues and their vices a brilliance which dazzles us.

This sensibility is manifest, first of all, in their language, which is without comparison the politest and most refined, and formed so as to sketch the finest features and to depict the most tender nuances of our ideas.

It is now a matter of working out the reasons for the great difference that exists between their tact or sensibility and ours. There are two: the first will become apparent by confronting the spirit of their legislation with that of ours, the other lies in something that is utterly particular to us.

Man can be considered in two different ways: as an individual and as a member of a society.

Religion, which is really the result of the relation* of each individual to the Supreme Being, and whose aim is the greatest good of each individual, had nothing precise about it among the Greeks: polytheism made it an object of ceremony and parade.

Civic virtue, which is the faculty that directs every individual's actions towards the greater good of society, was thus the one and only thing that needed to be perfected.

Although legislators were for the most part convinced of the necessary existence of a single Creator God, they still clearly saw that society† was merely a machine of human creation, and consequently that it could not have any relation to God but that of an automaton or a pendulum. They constructed these automata for the greater good, modifying the directing faculties of all individuals to their whim. They left this species of religion in its place, and sometimes made use of it with dexterity, believing, moreover, that, when haunted by gods, the people would rise a bit higher. From this it followed that each individual should be allowed a small dose of liberty to direct their own actions towards the greater good of society; and therefore [the individual] became a more or less respectable part of the state. In the end, [the individual's] greatest good would coincide in some way with that of society; and seeing the image of the state in themselves, all their faculties would be multiplied: and this would necessarily produce activity, industry, ambition and, what is more, that vivifying and enthusiastic patriotism.

Among those of us who enjoy a revealed religion, individuals have become sure of their eternity. Their relation to God is more defined and better known; but the nature of their goal has changed. They soon saw that their greatest good could not be found in a world which exists by way of succession; and so, the legislator, seeing civic virtue slightly weakened in this way, thought to remedy it by mixing it with religion.

Society, or the government which represents it, which possesses its right over the individual's actions solely as a necessary cause of specific determinate effects, arrogated [individuals'] intentions, meditations and every modification of their velleity, which solely belongs to their relation to God, whereas individuals no longer see their actions merely as the simple effects of their velleity, without considering their relation to society. Religion and civic virtue, which ought to have remained separate, mutually weakened each other; and man's internal liberty, once arrogated

* Knowledge of this relation depends either on a revelation that God will deign to make to each individual, or on the perception or opinion of each individual, that is, how he senses his relation [to God]. And since it appears to us almost impossible that there should be two individuals modified in exactly the same way, it must appear to us equally impossible that there will be two identical relations between two individuals and the Supreme Being, and therefore [impossible] that there is only one general relation between a certain number of individuals and God, [which is] composed of the different relations of each of these individuals to God.

† I do not mean here the society which derives from the social faculty of man, that is, from that attractive force which leads him naturally towards what is most homogeneous to him in some way; but I here mean a particular society, a political state, a particular modification of a part of general society.

and withered, gave rise to inactivity and stupefaction.

The other reason for the Greek's great sensibility in comparison to ours lies in this.

From our old chivalry was born the point of honour which gave birth to a kind of ceremonial [relation] between man and man. A singular monstrosity: a bizarre composite of Asian splendour and the Christian spirit of humility, which in truth meant that the masses, whom it enveloped like an atmosphere, insulted each other less, but also saw each other through a cloud.

An ample proof that these two reflections are more or less well founded is that when men become more enlightened, they soon begin, on the one hand, to separate religion from civic virtue, and, on the other, to throw off this type of politeness, like a defensive weapon whose weight is a hindrance.

In short, the Greeks' extreme sensitivity awoke more in them both the attractive principle and that of the greatest number of ideas in the smallest space of time. They sought the truth, and they were pleased to discover the greatest talents and the greatest virtues in the most beautiful bodies; and they were often right and must have been so due to the nature of their education. Besides, this idea was very natural, for they could not think of any of their Deities, nor of any of their Heroes, without having the idea of a beauty perfect in its kind.

The benefits that resulted from the fusing of those so strong, so enlightened and so active souls who observed each other so closely had to be very considerable, since we see, among these peoples, even legislators who often willingly ran the risk of abusing the first means, so as not to lose the fruit of the second.

I believe, Sir, that I have proven to you that the soul naturally seeks to unite its essence in the most perfect and intimate way with the essence of the object it desires, or rather that it wants to be what it desires – and this closely resembles the nature of the attractive faculty which we undeniably see in matter.

In truth, all that is visible or sensible to us tends towards unity or towards union. Yet, this all is composed of absolutely isolated individuals; and notwithstanding that beautiful semblance of a chain of closely connected beings, it appears clear that every individual exists in order to exist [for itself], and not for the existence of another.*

I conclude that everything visible or sensible is currently in a forced state, since, tending eternally to union, while remaining always composed of isolated individuals, the nature of the all exists eternally in a manifest contradiction with itself.

If, therefore, the all is in a forced state, it must necessarily be concluded that there is an Agent who makes it tend towards union, or who, by its strength and its nature, has divided it into individuals.

Everything naturally tends towards unity. It is a foreign force which has broken down the total unity into individuals: and this force is God.

It would be the most extravagant insanity to wish to penetrate the essence of this Impenetrable Being; but from the division of the all into individuals necessarily follows a coexistence of parts; and all coexistence is necessarily the source of relations, and therefore of unalterable laws.

* *See remark (*A)* [p. 86 below].

It is to be wished that we could speak with as much truth of, on one hand, the inertia in what we call matter, and, on the other, of that internal freedom which in some way governs the attractive faculty of the soul.

I have the honour to be
Sir
your most humble and obedient servant
H.L.F.[20]
The Hague, 1 November 1768.

Remark (*A)

Each individual exists in order to exist [for itself], and not for the existence of another. This is evident even to sight when it compares the productions of art with those of nature. What characterises the work of art is solely the result of the intended relations in a coming together of things with our organs, or with our way of perceiving or sensing. What characterises the work of nature is the result of its αὐταρκέια [autarchy], that is, of its sufficiency in existing, and, therefore, [it is] a determinate and perfect whole. In works of art, all relations – except those which have been intended in the work and which were the goal and origin of these works – are isolated, weak, obscure, imperfect or equivocal. In works of nature, all relations without exception are perfect and determinate, for they derive from the complete and determinate coexistence of two absolutely finite and perfect substances and have in themselves the power of being able to exist. On leaving the temple of the goddess, Pygmalion went home to discover something that convinced him of this truth.[21]

– Oraque tandem
Ore suo non falsa premit. Dataque oscula Virgo
Sensit: et erubuit: timidumque ad lumina lumen
Attollens, pariter cum coelo vidit amantem.
Ovid. *Metamorph.*[22]

General remark

Here follows the whole reasoning in brief.

Every visible object, sound, etc., from which the soul can form an idea by means of the organs, is assumed [to be] a whole composed of parts.

The affection that the soul has for some object is the effect of the object's action on the soul.

Like all actions, this action can be divided into intensity and duration.

Intensity is measured by the quantity of the object's parts that can affect the soul.

Duration is measured by the time that the organ employs in giving to the soul the idea of the whole object, or the modification of that object, inasmuch as it is analogous to the construction of the organ.

Thus, [in the case] of two objects whose intensities are equal, the strongest action on the soul will be produced by the object from which the organ can give the idea to the soul in the smallest space of time; and it is found by experience that this will precisely be the object that the soul prefers out of the two.

The soul will therefore choose that object from which it can acquire the idea in the smallest space of time.

Therefore, the soul will most desire, among visible objects, a luminous point that is almost imperceptible in its visible quantity, and, among audible objects, a high-pitched sound that is almost imperceptible by its pitch, etc.

But the soul also desires compositions, ornaments, a quantity of ideas as much as possible.

Therefore, the soul wants the greatest number of ideas in the smallest possible space of time.

But let us suppose that the time the soul must employ to acquire ideas is reduced to zero; it follows that the soul is equally distant from every part of the object, or equally present to all these parts.

Suppose also that the quantity of ideas which the soul can acquire from a single object becomes absolutely infinite; it follows that the idea of its own existence, or consciousness, is encompassed within the infinite ideas of every modification, of the object's every internal and external relation.

Hence, if, on the one hand, the soul is equally present to every part of the object, and, on the other, the soul receives the idea of its own existence or consciousness from the object, it follows that the soul would be intimately united to this object, or rather would make a single whole with this object without any duality.

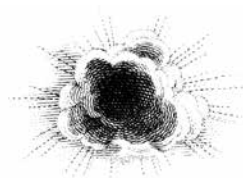
But, it will be said, if a thinking being, by the very fact that it has clear ideas of the object's every internal and external relation, and, among these ideas, those of its own existence, is perfectly and intimately connected to the object, it follows that God, who has the ideas of objects in a manner as perfectly intuitive as we are supposing here, will be identified with [these] objects – and this is absurd.

In the first place, I could dispute the amount of force that should rightly be given to arguments that lead to the absurd.

In the second place, I may remark that the absurdity of the identification of God with the object resides precisely in the impossibility or the manifest contradiction to be found in an identification of the one who makes and who preserves with what he made and conserved.

But let us suppose, at least as long as no other relations between the parts of the universe develop than those we know… let us suppose, I say, the actuality of this perfect union, or rather of this identification, to be impossible or absurd. It will, however, be clear that the soul in its desires tends by its nature towards this union, or it desires a continual approximation. This is the hyperbole with its asymptote:[23] and such is all I wished to demonstrate in this investigation of the nature of desires.

In that investigation which I [now] propose and intend to undertake on inertia and the generative principle of the universe,[24] it will be a matter of examining more closely both this tendency and the approximation which results from it, and whether the nature of this approximation is infinite or must find its end in the union.



Letter on Man and his Relations[1]

Avia Pieridum peragro loca, nullius ante
Trita solo: juvat integros accedere fonteis.
Lucretius[2]

Published in Paris, 1772.[3]

Editor's Announcement

> Libellum exhibeo, captu non adeo facilem, et qui non tantum ingenium in lectore requirat, sed etiam attentionem mentis praecipuam, et cupiditatem incredibilem cognoscendi rerum causas.[4]

Never has the freedom of the press been greater than in our day and, although it would be detrimental, even dangerous to our knowledge to restrain it, it is nevertheless incontestable that the amount of progress that we owe to it in the sciences and in the arts scarcely equals [the number] of real evils which it causes us from a moral point of view.

The prodigious quantity of writings in which atheism is openly preached, and where the attempt is made to destroy and often to ridicule the notions of the existence of a Supreme Being, the immortality of the soul, the necessity of any kind of religion, and the reality of [moral] customs, is an even greater evil that affects us in a century in which philosophical tone reigns everywhere, and in which the jargon of the sciences and of philosophy is the fashionable language. From which it follows that mediocre minds, who always constitute the majority, often take the most absurd statements – when stated gracefully and marked with this jargon – for incontestable demonstrations.

This is what resolved me to publish this little work, which bears the mark of philosophy, and in which we shall see – evidently, so it seems to me – that reason alone, by making use of simple experiments[5] and abstracted from the alterations which imagination and prejudices often give rise to, can never lead us to systems of materialism and libertinage.

I ask pardon of the author for the freedom I am taking in disposing of his work; and I desire that he be more flattered at having sought the truth successfully than

angry if weak minds, who fail to understand him, were to be alarmed at his apparent peculiarities.*

Sir,[6]

It is as much to satisfy what you desire of me as it is for my own amusement that I have put in order the investigations which I am addressing to you. They concern the nature of man, those things which are outside him, and the relations that he is able to have with these things.

I certainly do believe that many people would reproach me for the lack of size and lack of clarity of this small work; but, in addressing myself to you, I have profited from being able to adapt its size and clarity to the composition of your mind.

If, however, you find great patches of shade and immense lacunae in my description, remember, I pray you, that the subject is large, often obscure and sometimes buries its deep roots into faces of the universe that are not turned towards our organs, and even into the abyss of beings.

Remember too that it is already a lot for a dark, overcast sky to turn into a few clouds, the gaps between which permit, at the very least, the avid eye to pierce the starry vault.[7]

A being which has the faculty of sense can have a sensation of another substance only by means of ideas or images, which arise from the relations that hold between this substance [on the one hand] and [on the other] this being or what separates it from this being, which I call organ: that is, I dub organ not only the eye that sees, but also the light reflected from the object; not only the ear that hears, but also the air set in oscillation by the movements of the object.[8]

This being, upon receiving the idea of an object, senses itself as passive; for it cannot cease to have the idea, if the modification of the object and [the modification] of the organs remain the same.

It senses itself as passive, and consequently it senses that there is an object, or a cause of the idea, outside of it; and if many of these beings have basically the same sensation, the conviction becomes all the greater.

The object therefore really exists outside of [this being], but since the idea is the result of relations between the object and the modification of the organs, [the being] concludes that, among all the manners of being of this object, there is also to be found that manner of being from which it has a sensation by the idea – that is, that this object, vis-à-vis [the being] and its organs, really exists as it appears to

* See clarification *(*a)* [pp. 127–8 below].

it: and this determines the whole series [of reflections] that can be made on the primitive ideas that we receive through the organ.*

I pray you to hold this reflection always before your eyes, since it alone gives us the right, so to speak, to aspire to knowledge of the truth.

This acquisition of primitive ideas, common to man and animal, has almost nothing yet to do with the constitution of a thinking being.

These primitive ideas completely evaporate with the absence of objects. Therefore, it is impossible for a being to be able to compare two objects, if their actions on their organs do not coexist at the same time, unless it makes use of a means of fixing these ideas – that is, unless [this being] uses signs.

I will provisionally define signs as distinct symbols that correspond to ideas. The idea being given, the sign will appear; and conversely, the sign being given, the idea to which it corresponds is made manifest.

Please be warned that I am here considering the being which has the faculty of sense as an individual, absolutely isolated, and not as forming part of a society;[9] and that, consequently, I have considered signs solely as instruments for recalling ideas, and not at all as a medium to communicate the ideas of one being to another.

The first natural signs are the effects of the object on the organ; thus, the object itself is the sign of the idea that corresponds to it; but since the object external to that being which has the faculty of acquiring ideas depends minimally or not at all on this being, it follows that this being receives all its ideas at random – that is, when the sign, or, what is here the same thing, when the object appears. It is necessary to exempt those cases where this being's velleity[10] has the physical power to retain the object – that is, the sign and therefore the idea – for some time.

It is this type of sign that, in general, almost all animals seem to utilise: when the object is itself the sign to which it corresponds, their velleity cannot recall these signs, and, therefore, they can think and make plans only about the ideas of objects that really coexist in front of them.†

When I go on to speak of reason, I will show a little more distinctly the difference between our way of thinking and that of animals.

Thus, a being which has the faculty of receiving ideas, thinking, reasoning or planning must have signs which are not the objects, but which correspond to the objects and of which he is perfectly the master.

This being can, in a thousand different ways, procure signs that recall his ideas to him. All that is needed is that he makes coexist with an idea – or with the last movement of fibres[11] which produces that idea – something which depends on his velleity: a voiced sound, a movement of his body, a certain modification of things that are outside of him but which are directly under the control of his organs; and, provided that each sign always corresponds to the same idea, he will have the ability to make several objects appear to coexist, and to compare them together.

* See clarification *(*b)* [pp. 128–9 below].

† *Inter hominem et beluam hoc maxime interest, quod haec tantum, quantum sensu movetur, ad id solum, quod adest, quodque praesens est, se accomodat, paululum admodum sentiens praeteritum aut futurum.*[12]

We have considered the means by which ideas are acquired, by which they are recalled, and what reflections can be made concerning the veracity of their representations; it is now necessary to see what reason and reasoning are.

The being which has the faculty of sensing, and consequently that of acquiring ideas – or, what is the same thing, the contemplative or intuitive faculty – has true sensations of objects that are currently outside of it or outside of the present modification of its organs; and nothing more. However, the being which joins this intuitive faculty to the ability to recall ideas by means of signs can make this faculty act upon as many objects at the same time as can be made, in some way, to coexist in appearance by means of ideas.

It is this intuitive faculty which is called reason, and its application to ideas, reasoning.

What constitutes the degree of perfection in intelligences is the greater or lesser quantity of coexistent ideas that these intelligences can supply and submit to their intuitive faculty.

An absolutely perfect intelligence could, in the full force of the term, make many ideas coexist; thus, the most perfect of two intelligences will be the one which brings several ideas as close as possible to absolute coexistence.

For example: let $a : \mathrm{D} = \mathrm{D} : x$. Let $a = 2b$, $b = 2c$, $c = 2\mathrm{D}$. And let us suppose that four intelligences recall the ideas of a, b, c, D and x, along with all the aforementioned relations.

The first [intelligence], which we are characterising as making almost all of its ideas coexist, will straightaway sense that $x = a / 64$: immediately it compares a with x, with no regard to any intermediary relations, or rather it senses all these relations in the same instant.

The second one will likewise find $x = a / 64$ and often do so straightaway, but it will have passed rapidly through all the intermediary relations.

The third one begins by arranging its ideas in order from the simplest to the most complex. It then compares the two simplest ones and draws a conclusion – that is, it acquires a new idea of a relation. This new idea is now compared with the least complex idea from all the rest; it draws a conclusion; and, with the resulting new idea, it continues with the same procedure, and, in the end, reaches an identical truth.

The fourth one, which would be able to make coexist, in some way, only two of these ideas or two of these relations, will not be able to judge which of all these ideas is the simplest or the most complex: it thinks at random: it will compare the relation of a to b to that of c to D; or that of b to c to that of D to x, from which no conclusion, no truth, no new idea is to be drawn, owing to a lack in its intuition of ideas or intermediary relations.

In the first example, it is genius that senses.

In the second one, it is the divining mind that proceeds quickly, and that can be mistaken.

In the third one, it is sagacity that searches and discovers.

In the fourth one, it is errant and blind stupidity.

It is evident from what I have just said that reasoning is nothing but the simple application of the intuitive faculty to as many present, coexisting ideas as possible;

that the new truth is but one and the same as the truths of the comparison from which it results; and finally, that it is from genius that we must expect great and remote truths, from sagacity those clear truths that can be sensed by everyone, from the mind truths and errors, and from stupidity obscurities.

What has often been ornamented with the name of philosophy is really just the dregs that remain after the imagination's effervescence.

Since, on the one hand, there is nothing so extravagant that it has not already been imagined by this kind of philosophy, and since, on the other hand, it has been necessary to confront the blindness of stupidity, a logic was invented to hold the former in check a little, and, if possible, emit a feeble ray of light into the chaos of stupidity.

Note, I pray you, that this artificial logic is posterior to the intuitive faculty, which is the only genuine logic.

The being which has the faculty of sensing has three natural means to receive ideas:

1°. By the action of the objects, which puts the organs in motion.

2°. By the accidental movement of the organs.

3°. By movement imprinted on the organs as a result of signs.

It is now important to consider the degree of clarity of the ideas that arise from these three means.

The idea that results from the presence of the object has all the requisite clarity and is without confusion.

The idea resulting from accidental movement of the organs is much less clear, and very often confused.

The idea that the velleity recalls through the sign is even less clear, but it is well defined and without confusion.

It is possible to measure these degrees of clarity by experiment.

When one dreams while sleeping and the scene of the dream takes place in broad daylight, one has to pay attention to the moment of awakening, and, when opening one's eyes, to compare the clarity of the true day with that of the day just left behind; and it will be seen that the difference between the idea produced by the real and present object and that occasioned by accidental movement of the organs is immense.

When one is engaged in following a geometric demonstration or playing chess with eyes closed, one senses the distance between the clarity of the ideas imprinted by the real object and [the clarity] of the ideas which appear with the manifestation of the sign.

In dreams, one often discovers geometrical truths that had been sought for in vain when awake. In dreams, man is commonly more resolute and more determined than when awake: he has more fear and more courage; I dare say that he reasons more correctly, because his intuitive faculty contemplates almost only present, coexisting ideas, not those which are recalled by signs, and consequently [they are] stronger than recalled ideas; and, I add, he is more true. In his dreams, man exists entirely according to his character. Let someone give me the faithful history of his dreams, and I will give him the perfect picture of his moral character. Alexander[13] never took flight in his dreams.

Finally, it will be clear that the movements of the remotest fibres of the organ, occasioned by the accidental state of the body, are much stronger than those which are impressed by means of signs.

If we now consider that most animals are more determined and more resolute in their actions than most men, it is easy to understand what kind of difference there must be between the intellectual condition of animals and that of man.

The animal has no arbitrary signs, and therefore it does not have the faculty of recalling to itself at will the ideas of objects; and this deprives its intuitive faculty of an immense quantity of ideas for contemplation.

Let us see the quantity and the quality of the ideas that pertain to [the animal].

As to the quantity: it is formed by the ideas that it has received from the current impression of objects and by some accessory ideas that the appearance of the object, as a sign, recalls. For example, a dog has been beaten by a man: this dog, lacking arbitrary signs, does not have the faculty to recall to itself at will the idea of this man and the blows received; but as soon as the man appears, this man is the sign which reminds it of the idea of the blows received, of the pain it has felt, etc. Concerning these ideas, while [they are] coexistent, it will reason correctly.

As to the quality of the ideas that pertain to [the animal]: the ideas it receives from the present object are as strong as those which man receives from it, with the exception of the perfection of the organ, which can be greater or less depending on the animal. They are consequent on the movement of the fibres of the organ as occasioned by the presence of the object, and the accessory ideas result from the movement which these fibres have imprinted upon adjoining fibres (which had previously been set in motion by objects) that had at that time really coexisted with the object which now serves as a sign.

An animal still receives ideas in dreams by the accidental condition of its body, and [it does so] in the same way as man receives them; but the quantity of these ideas must be proportional to that of the ideas that it can acquire awake.

It follows from this, first, that the animal's intuitive faculty can only act on ideas which are given to it haphazardly by objects or the need of its organs.

Secondly, that the coexistent ideas on which alone the intuitive faculty applies its standard are in number very small, if we compare them to the immense quantity of ideas that man's velleity can make coexist and compare.

Thirdly, that, since the animal receives almost all of its ideas in an equally clear manner, it has passions that possess more equality of strength [than man's]; and it has, so to speak, more of a generic character in its species than man does – which could serve as a response to Philemon's[14] question,

Τί ποθ΄ ὁ Προμηθεὺς, ὃν λέγουσ΄ ἡμᾶς πλάσαι
Καὶ τ΄ ἄλλα πάντα ζῶα, τοῖς μὲν θηρίοις
Ἔδωχ΄ ἑκάστῳ κὰτα γένος μίαν φύσιν.[15]

Finally, it appears from what I have just said, that – even without appealing to the possibility that the faculty of using arbitrary signs adheres to the essence of man – animals, as far as their intellectual faculty is concerned, are infinitely below him.

It appears, moreover, that what is called instinct is the judgement or necessary result that must follow from the intuitive faculty acting on a few simple and clear, coexistent ideas.

We have just considered [man as] a being who has the faculty of sensing, thinking and reasoning. Let us now go on to contemplate man as an acting being, and ascertain whether he is simple or complex, subject to destruction or [possesses] an enduring essence.[16]

1. A body at rest or in uniform motion persists, by its own nature, in its state of rest or in its uniform motion.

2. Therefore, a body cannot pass from rest to motion or from uniform motion to accelerated motion, unless by the action of something that is not that body.

3. By an act of his velleity, man's body passes from rest to motion or from uniform motion to accelerated motion.

4. Thus, man's body is set in motion, or its motion is accelerated, by the action of something which is not that body.

5. It follows from this that the motor principle of this body, which we call the soul, is something different from this body.

1. It is contradictory for anything to destroy an essential property of itself, since it is of its essence to have this property; thus, it would reduce itself to nothing.

2. An essential property of a moving body is its persistence in moving in the same direction.

3. But a man changes the direction of movement of his body by an act of his veilleity.

4. Consequently, if he were nothing but his body in motion, man would be destroying an essential property of his body in motion.

5. It follows once more that the initial motor of this body, which we call the soul, is something different from this body.

1. The ideas which we have of things derive from the relations that hold between things and our way of perceiving and of sensing.

2. It is possible that we could have[17] an idea of everything that has extension and figure.

3. The smallest particle of our body has extension and figure.

4. Therefore, it is possible that we have an idea of the smallest particle of our body.

5. But the idea is the result of the relation that holds between the particle and the one who perceives.

6. Therefore, what perceives is something other than the particle, and the soul is something different from the body.

1. The idea we have of action and force comes from the difficulty we encounter in changing the spatial relation of things.

2. To change the spatial relation of things thus assumes an action.

3. At each moment, however, a moving body changes its spatial relation.

4. Therefore, at each moment this body is subject to a present and real action.

5. But without obstacles this body will forever persist in moving in a uniform manner.

6. Consequently, the motor principle, which is within this body in motion and which causes it to move, exists and acts eternally.

7. Thus, when considering motion in itself, such motion is a unique, uniform and eternal action.

1. A cause is a cause of the effect only in producing the effect.

2. Therefore, an effect is an effect or necessary consequence of the cause that produces it.

3. Hence, effects are proportional to their causes.

4. Thus, just as being born, growing, ageing and dying are necessary effects of a cause whose way of being consists in the successive coexistence of parts, so too motion as such or this unique, uniform and eternal action is the necessary effect of a single, uniform and eternal cause.

It will not be inappropriate to reflect here on the topic of the *eternal*; and I ask you to remember the results of this reflection wherever I speak about the matter.

An eternal thing is, by its nature, often taken for something that exists by itself. It is true that something existing by itself would necessarily be eternal by its nature, but it does not follow from this that everything eternal by its nature exists by itself.

That which – in order to no longer exist – need only be decomposed is not eternal by its nature.

That which – in order to no longer exist – would need to be destroyed is eternal by its nature.

All that pertains to our senses – an animal, a plant, a stone, a building, insofar as these things pertain to our senses – fall under the first case. We see that motion falls under the second; and I will prove that this is also the case for matter as matter.

What is decomposable to the point that its essence is extinguished, or to the point that it ceases to be what it is, is not eternal by its nature. A tree consumed by flames has ceased to be a tree; but matter as matter could not be decomposable to the point that its essence is extinguished, since the last particle is always still extended, figured and impenetrable by its nature; consequently, in order not to exist, matter as matter would need to be destroyed; and thus it is eternal by its nature.*

But, with regard to motion, we have seen that what is eternal by its nature may have had a beginning; therefore, it is not impossible that matter as matter – eternal by its nature – has had a beginning. I say further: not only is it not impossible, but I will prove that it must necessarily have had a beginning.

That which exists by itself and whose essence is to exist exists necessarily, and necessarily in a determinate way. Existing necessarily, it would be contradictory for it not to have existed or for it to have existed in a manner that has been determined otherwise.†

Now let us suppose for a moment that the last particles of matter are cubes. No contradiction would be implied if they were spheroids, octahedrons, &c. Therefore, matter does not necessarily exist in a determinate way. It is not contradictory that, instead of this particle, there exists only extension: consequently, matter does not

* See clarification *(*c)* [p. 129 below].

† See clarification *(*d)* [p. 129 below].

necessarily exist, and its existence does not properly belong to its essence; thus, it does not exist by itself, but by another.*

But let us return to the soul.

This unique, uniform and eternal cause, this soul, senses its existence only when it acquires ideas of things that are outside of it.

It senses that it is something other than everything of which it has ideas; that it is something other than everything that is outside of it. Everything that is outside of it and of which it has ideas is the starting point from which it departs to arrive at the conviction of its own existence. If this starting point were removed, that is, if the organs by which it could have ideas of external things were annihilated, it could have no sensation of its own existence. It is by means of its desires, its attractive faculty, that it is informed that it is. It senses that it acts only by the idea of reaction. Without the reaction it would have no idea of its velleity. Annihilate all reaction for a moment, the velleity or the faculty of being able to act must yet remain, even though it is manifest only by reaction. Thus, to conclude from the soul's condition during a deep sleep that it does not exist is a conclusion little worthy of philosophy.

In order to have ideas, to think, to act, [the soul] needs organs. Its action, or the impulse it imprints on external things, is, by its nature, eternal and indestructible insofar as it is not in contradiction with the greater impulse impressed upon nature by the hands of the Creator.

When we turn round quickly, when we run, when we jump, we sense distinctly the indestructibility of this movement which our velleity has imprinted on our body; and even this velleity itself is not able to undo it, unless, by means of organs, it calls to its aid the forces imprinted on all nature, so as to use them directly against the movement which it alone had previously effected.

There is perhaps no other organism in the faces of the universe that we know that could have attached itself so that it is able to act on this very organism; but once attached to these organs, everything that is homogeneous to these organs becomes an organ for it. [The soul] is attached to all the faces of the universe that it knows: it acts on all these faces, as on its own body, in proportion to the intensity of the action which emanates from its velleity, in proportion to the force of the laws of nature which derive from the emanations of the supreme velleity.

The reason why man still doubts the immortality and indestructibility of his soul, even after such clear demonstrations and proofs, is that he senses himself and sees himself only in the things outside of him. Few minds are made for absolute abstraction, and we are more accustomed to attribute to the soul a certain modification which fits more or less with vague and superficial ideas that we ourselves form of our actions than to go deeper into the nature of our actions in order to ascend from them to the nature of the soul's essence.

Try to convince the caterpillar of the state of happiness that awaits it: it doubts, and it ends up believing that God only intends it to drag itself along a leaf, to gnaw its edges and finally to be consumed for the sake of others; whereas its soul is already attached to a physical principle that, in a short time, will lead it to frolic in

* See clarification *(*℮)* [p. 129 below].

the air, fly from flower to flower, live on dew and taste in long draughts the purest pleasures of love.

Since in the preceding reflections I did not trouble myself with the consequences that could be drawn from them, I believe it will be necessary to answer some objections before going on to contemplate things that are outside of man.

1°. In dreams we receive ideas just as when we are awake; and according to the above argument, it is necessary to conclude that the things of which we appear to have the ideas exist such as they appear to us; whereas these things exist nowhere but in images or in ideas born from the accidental movement of organs.

Without repeating what I said in relation to the clarity of ideas we have in our dreams and without repeating that, while awake, the sensation of several beings of our species ends up convincing us of the existence of things outside of us – I will merely note that, in our dreams, in our reveries, in insanity, we believe we see things, but composite things – composed of parts that we really saw while awake – composed of images or primitive ideas which these really existing parts have produced on the remotest fibres of the organ by their actions.

Thus, it is always true that the parts which compose this monster or imaginary spectre exist or have really existed, and even as they have appeared to us.

2°. To upset in some way the demonstration of the heterogeneity of the soul and the body, the only thing we could say, it seems to me, would be that I only reason about the nature of this crude matter that falls under our senses – and that, however, according to all appearances, matter will have an infinity of essential properties other than those which we know of, and that, thus, I should have been more circumspect in drawing conclusions about the few known properties of matter.

We cannot affirm or deny anything of things about which we sense neither the possibility nor the impossibility, neither the existence nor non-existence; and since [it is precisely] these supposed properties involved in this case, we cannot derive from them any argument whatsoever.

But let us suppose that matter has an infinity of essential properties unknown to us; it is perfectly impossible for anything to have two contradictory essential properties, that is to say, that matter be both capable of figure and not capable of figure, extended as well as non-extended, etc., at the same time. Yet I know for certain that matter is, among other things, figured, extended, etc. Therefore, it is absolutely impossible that, among the infinity of supposed essential properties, there are properties by which matter would be non-figured, non-extended, etc. Thus, the conclusions that have been drawn from arguments based on knowledge of this crude matter are not haphazard.

3°. From the demonstration of the immortality of the soul, [as with] man's soul, that of the animal will entail a coil-spring – which is likewise the cause of motion eternal by its nature – [and so] is also eternal by its nature.

It is true that the animal's soul appears to be as eternal as that of man. I say appears, since I cannot learn from the animal what it senses. I can affirm it in relation to man, for I am a man and therefore I reason on the truths that I sense. If I am to be accused of bringing the animal too close to man, we must remember what I said earlier about the animal's intellectual faculty and about the possibility

that the use of arbitrary signs adheres to our essence. Besides, this reflection merely comes from our pride, our envy and our vanity.

As for the coil-spring, I will speak of it later; but it should be remarked here that the coil-spring is a body set in motion by a cause outside of itself.

4°. If the velleity, or the spontaneity of man, is not proven, what we call velleity could well be only an accident deriving from the first movement impressed upon nature by the hands of the Creator, or from movement indwelling in nature.

To want to prove the velleity of man is to want to prove his existence. But he who does not sense his existence when he receives ideas of things from outside of him, and he who does not sense his velleity when he acts or desires – he is something other than men, and could affirm nothing of their essence.

But since I feel this answer would scarcely satisfy materialist philosophers – who might say, with some semblance of reason, that I am here doing nothing but eluding the question – I find myself obliged to answer in a slightly more distinct way.

In order to prove that the velleity resides within the soul and that it is not the effect of a foreign cause, it is sufficient to consider the act of will in [such] cases where it is impossible for it to achieve its goal, that is, in those so frequent cases where it surpasses our power.

Let us posit that velleity is the necessary effect of a physical cause, that the will wants to produce a physical effect, that this effect is to be the displacement of a weight of a hundred pounds, and that this will has the means or force for merely fifty [pounds] – then it will be necessary that, at the moment when [the velleity] compares its fifty pounds of strength with the hundred pounds of weight [involved in] the action, it will be annihilated, be negative or continue. But one will say that the case I am supposing is exactly like that of a coil-spring. Without entering here into an enquiry into the nature of the coil-spring, even though it would be infinitely curious, I answer that the means the will employs may in fact be like the case of the coil-spring, but not the will itself. Let us posit that a coil-spring with a force of fifty pounds acts against an obstacle of a hundred pounds, then it is true that the action of the coil-spring is neither destroyed nor negated but will continue permanently. And this coil-spring continues its action solely in a uniform manner, that is, with the force of fifty pounds, just like the means the will employs that are just as powerful. Now if the will were a modification caused by the impulses of some parts of matter, one of three [options] would have to be [the case], according to good physics: either that this will was negated, or that it was annihilated, or that its intensity remained the same in accordance with that of the means employed, that is, with the power of fifty pounds. But none of these happens in this case: the will carries on regardless and still wills to move one hundred pounds.

What is very remarkable is that experience often shows that the intensity of the will increases in proportion to an increase in obstacles. Let us posit that in my head the idea of a beautiful building is formed, that I am not content with this idea, but that there comes to me a will to realise it so that there will exist a building in conformity with this idea. Let us posit further that I succeed by dint of expenses and labour to build myself this building. Finally, let us posit that everything in the universe is matter. It follows that, from the initial idea to the formation of the building, everything has proceeded from matter to matter and from movement to

movement. But any force produces its effect and nothing more. Yet it is perceptible that the force which has directed some particles of matter in my brain to form the primitive idea is very small in comparison with the force required to lift and to put down the enormous masses which compose the building. Consequently, it is absolutely necessary that this initial force should be such as to be able to increase prodigiously by itself, and that there is in matter an independent progressive increase of mass or in motion an intrinsic acceleration of intensity – but this contradicts everything we know about matter and motion. Therefore, the act of will which produced the building is neither a force modified by the movement of matter nor a modification of matter, but it is by nature able itself to give motion to matter and able to modify or to accelerate this motion – without which it would be completely impossible that there could exist any production or industry in men or animals.

After demonstrating that the nature of the velleity is directly contrary and repugnant to what we know of the essential qualities of matter and motion, the freedom of this will is not so incomprehensible anymore.

It appears to me that those who have challenged this freedom made serious errors. They said: the wise man must necessarily take the wisest of two courses, and this, it seems to me, is in fact to substitute the effect for its cause. The wise course that is to be taken becomes the cause, and the choice that is to be made becomes the effect. We must say: the wise man necessarily takes the wisest course, because he wants to be wise. They have said, there is no effect without a cause; agreed, but they have not proven that every cause was an effect, and they have assumed what is called the will to be an effect; this is to assert what is in question.

Let us posit that I have to choose between A and B. I choose A; and I am told that my choice was not free but necessary. I admit that I cannot prove the opposite by means of the effect, [but] solely because the choice has been made and cannot be remade; yet, if one wishes to enquire into freedom, why would one consider the case a moment after the choice, that is, when freedom could no longer subsist, and not the moment before, when it still existed? At that moment I am free to such an extent that I can make the course I am going to take depend either on your will or that of a third party. Therefore, the course I will take does not depend on causes that will make you find it good, right or wise, but only on my will, which knows nothing of the impulses that orient you. If someone says that my submission to your will is necessary, then they are considering the case after the fact, and [this claim] is just as incontestably true as it is incontestably false before the fact.

Let us move on now to the contemplation of things that are outside of man.

At first, man sees only matter, change and movement outside of him; but he sees the matter so distinctly divided and the changes and movements so regular that he succeeds in knowing matter sufficiently to modify it to his own ends and [in knowing] movements and changes sufficiently to divine their laws. The former is proven by the use man makes of these modifications of matter, and the latter by the certainty with which he predicts the future in astronomy, agriculture, etc. What he does not know is the essence of this matter, the mechanism of the changes he sees in this matter, and the initial origin of movement.

As for knowledge of the essence of this matter: as long as the soul receives the sensations of things by media, it will not know the essence of anything. Man does not know at all what this matter is, but he knows with certainty that it is, among other things, what he sees.

Wanting to act on a body or on matter, he senses a reaction: he concludes that, at the very least, the body suffers insofar as he himself acts.

When he compresses a coil-spring, he senses a constant and lasting reaction; and when he releases the coil-spring a little, he senses that he himself is passive and he concludes from this that there is a principle of action in the coil-spring.

Undertaking the same experiment with another coil-spring, he will get the same effects; but when he stretches or tenses this coil-spring by means of the pressure of another, equally tense [coil-spring], he sees no effect; but he concludes from the first experiment that these two coil-springs act against each other, without end and without cease. He sees a continual action and reaction in gravity, in inertia, in attraction, and he concludes from this reflection, combined with his experiments on the coil-springs, that everything is coil-spring, and that there are many more principles of action in the universe than effects. These actions and reactions, in relation to effects, appear to destroy each other mutually, but, in reality, they remain eternally full of life and active.

What makes a thing what it is is properly called inertia.* What determines a thing at the location where it is, or in the manner that it relates to other things, is properly called attraction.

These two forces both adhere to matter, or to the physical universe, thus appearing, as I said, to act against each other in opposite directions. But let us please consider more closely the nature of these two forces.

Attraction acts by reason of masses or quantities of matter, and by reason of distances squared.[18] But inertia, that is, the force by which a thing is what it is, or rather the degree of indestructibility of a thing,† also [acts] by reason of the quantity of matter, and by reason of its porosity or, what is the very same thing, by reason of the distances squared of the parts which compose it.[19] I conclude from this that these two forces are merely one and the same in their principle; and with this force alone – this one tendency to union – the universe would soon be reduced to unity. Therefore, the causes of changes in generation, vegetation, decay and destruction are rather to be sought in the modification of the parts which compose the individuals than in the apparent contrariety of inertia and attraction.

If I call to my aid experiences,[20] after having perfected my organs as much as possible, I always find matter composed of homogeneous and heterogeneous parts.

Now, it is to be proven that a certain number of homogeneous and uniform parts will compose, by attraction, a whole that is far more indestructible than a certain number of heterogeneous parts, since the centre of gravity of this whole, or of this individual, will necessarily coincide with the geometric centre of the individual formed by the coagulation of homogeneous and uniform parts. From

* See clarification *(*f)* [p. 130 below].

† See clarification *(*g)* [p. 130 below].

this I conclude that the first coagulation of a certain number of homogeneous and uniform parts must necessarily give rise to a principle of regularity.

This principle of regularity constitutes the first seeds of all physical individuals and determines, in each seed, the modification of all the individuals that it has to produce during the centuries that this physical universe will exist.*

Put the seed of a flower or a plant into the ground in a place where neither earth, nor water, nor atmosphere supplies it with parts that are homogeneous with those which compose it; and no effect will result from this cultivation. But when the same seed is placed in soil where it finds parts homologous to its essence, it attracts and hoards them, and the plant will grow. But the attraction of the homogeneous, or inertia, will diminish, since the principle of regularity is weakened; and finally, having obtained a mass such that general attraction, or gravity, surpasses this weakened inertia, or this diminished attraction of the homogeneous, the plant will wilt and decay; but it necessarily ends up in parts similar to its source – and whose regular principle, this inertia, this primitive attraction of the homogeneous, will now take revenge on universal attraction for the destruction of its maternal plant.

What experiments could be done concerning this principle! On the basis of what I have just said, it follows necessarily that many individuals, in the three [natural] kingdoms, contain prolific parts in locations other than those which appear to us uniquely formed for generation. Each particle of the polyp, the tremella or the tapeworm is seed. How many plants produce their offspring through their bulbs, their roots, their stems, their leaves! The whole mineral kingdom is seed.

From what I have just said, it would, at first sight, appear quite evident that the physical universe, composed of homogeneous and heterogeneous parts, could produce by the principle of attraction alone every transition we remark in the modification of the individuals it contains; and one can even get a bit of an idea of this operation with a magnet and iron filings. But this game cannot be of long duration: for, if it were the same law by which things are what they are and by which they tend to union, then the physical universe would be reduced – either very soon or at a fixed and finite time – to a single mass, the parts of which would have no relation among them that could result in an effect. Thus, it is necessarily the case that these parts still have a determinate direction of movement which prevents this total union.

We see it distinctly in centrifugal force.

Imagine a planet which orbits its sun in some fashion. Attraction being annihilated, the planet will follow its path in a uniform way at the tangent of its orbit. Therefore, this planet possesses within itself, or has received from elsewhere, a direction of movement which is different from that which would lead it to the centre point; and it appears, by the first principles of mechanics, that whatever the direction, provided that it is different from that of attraction towards the major star, it is sufficient to necessarily prevent this union.

* Πάντα δὲ τὰ ἀνομοιομερῆ σύγκεῖται ἐκ τῶν ὁμοιομερῶν. 'Now all the non-uniform parts are composed out of the uniform ones'. – Aristotle, Περὶ Ζῶων (*Historia animalium*), I.1, 486a12–13.[21]

If we now suppose that the homogeneous or uniform parts of the universe, whose first coagulations form the seeds or principle of regularity, are the only ones which have not received this foreign movement, or [are] the only ones which have received it in the direction leading to what resembles them, that is, in [the direction] of what mutually attracts them, and [if we suppose] that the heterogeneous parts are the only ones which have, or have received, movements in directions different from those of what attracts them, and which, therefore, allows for some approximation [between them] but which absolutely prevents a perfect union; then [if all of the above is the case], one will see, at least, that it does not seem impossible that the mechanism of change in the universe is such as I have just described.

We have seen above that the soul, by its velleity, has the faculty of impressing a movement which is eternal.

But regarding the propagation of souls, please allow me rather, in place of conjectures, to finish this part of my letter with a less familiar and most singular experiment.

Take a dog or some other male animal which has not approached any female of its species for several days. Compress its spermatic vessels between your hand such that the seminal liquid emerges from it. Observe this liquid under a microscope, and you will find a prodigious number of Leeuwenhoek's particles or animalcules,[22] but all at rest and without any sign of life. Next, let a female of the same species as the male into the room – one that is in heat. Leave these two animals to run around the room without mating. Take the male and examine once more his spermatic liquid: you will find all these animalcules are not only lively, but all swimming with a prodigious rapidity in the liquid, which is, moreover, thick.

I repeat, without the idea of reaction, the soul has no idea either of its actions or of its velleity.

The third thing[23] that man does not know is the first principle of motion. But let him once again call experience to his aid. He sees in truth a change of motion, of spatial relation, of direction throughout all of nature; but in no case – without exception in the whole of nature – does he distinctly see or perceive any origin or beginning of motion in any of nature, without perceiving that the initial cause of this motion is the velleity of an animated being. And he must necessarily conclude by analogy that, in every other case in which he does not have a clear perception of the origin or beginning of motion, the velleity of such a being is the initial cause of all motion.

Before passing on to the section concerned with man in society, let us note once more that man, as far as we have considered him till now, sees in the universe only action, reaction, coil-spring and active force. He sees in attraction and centrifugal force two agents universally spread throughout all of nature, a labour, a continual struggle between two contrary principles; and since it is contradictory for a thing which exists by itself to have two opposed principles, he surely concludes from this that the universe could not exist by itself, and that, therefore, it exists by another.

When he contemplates the reciprocal modifications of several particular objects – for example, of the eye, abstracted from the optic nerve and considered only as a modification of several diaphanous bodies – he sees that, to form this eye,

a geometry so prodigiously transcendent and profound was needed that it surpasses infinitely all efforts of the human mind, since he can demonstrate that, without this profound geometry and the infinite combination which results from it in the modification of this eye, it is impossible for the eye to produce the effect it does produce.* And if he also reflects that this prodigious modification must have been made within the first seed, or within the first individual, such that it could subsist in all individuals born over an infinity of centuries, he will conclude that the author of the physical universe and of the individuals it contains is an Intelligent Being. And since he senses himself intelligent, he compares this great Intelligence to his own and discovers an infinite distance [between them].

Here is everything that this being who has the faculty of receiving, recalling and comparing ideas – when considered as an individual – can know of the existence of its author. When it comes to his relations to this God, to the duties resulting from them, to the attributes of this immense Being, he cannot have any idea of them, but will be able to say with the wise Philemon:

Θεὸν νόμιζε καὶ σέβου, ζήτει δὲ μή.
Πλεῖον γὰρ οὐδὲν ἄλλο τοῦ ζητεῖν ἔχεις.[24]

I will go ever further: I say, if this individual being is still going to pursue his enquiries so as to obtain, if he can, knowledge of the Creator; if he reflects that an infinity of billions of worlds such as ours is as nothing; that there is not only the possibility, but the probability of an infinite progression of organs which would make known an infinite progression of faces of the universe – but only according to this proportion: *just as the tangible face is to the visible face, so the visible face is to another face*, etc. – [then] he will [in fact] attain a sombre idea of a very different universe. And if he still reflects that this rich whole is but one thought of the supreme God, then he will regard this dreadful Power with a sacred horror; he will sense his [own] annihilation without sensing any relation [to God]; and this obscure, sterile and sad knowledge of God would make him the most miserable of beings.

We will see, first of all, that this is very far from being the fate of man; however, note in passing what would be the fate of an animal if it had knowledge of the Divinity.

Just as the organ of touch exposes the universe as tangible to the individual man, just as hearing and air expose the universe as sound to him, just as sight and light expose the universe as visible to him – so what he calls heart or conscience, and society with homogeneous beings, expose the universe as moral to him.

There is no more incommensurability between the moral face of the universe and the visible face than between the visible face and the audible face, or between the audible face and the tangible face, etc. and all those different faces of the

* Those who are versed in optical geometry will be able to examine this reflection in much more detail in the illustrious Euler's Memoir on the law of refraction of rays of different colours in relation to the diversity of the mediums through which they pass. See *Histoire de l'Académie royale des sciences et belles lettres* [of Berlin, 1753].[25]

universe, of which we have perceptions by these different organs, are equally and distinctly subordinate to the contemplative and active faculties of man.

Love, hate, envy, esteem are words that express sensations as distinct as those of tree, star, tower, *Do*, *Re*, *Mi*, sweet, bitter, sour, the smell of a rose, jasmine or a carnation, cold, hot, hard, soft.

If there is any difference between the precision and clarity of our perceptions of these different faces, it is to be attributed to insufficient exercise of the organ which is turned towards the relevant face, or to the constraint to which it will have been subjected by a certain modification of society.

In the current modification of society, our organs of sight and hearing are the most exercised and least constrained; those of taste, smell, touch and the heart are more constrained and less exercised, and, as a result, we currently have clearer perceptions of the visible and audible faces of the universe than of its moral, tangible faces, etc.

So as to move into contemplating man in society in a well-ordered way, we must begin by examining more closely this organ, which until now has no proper name and which is commonly referred to as heart, sentiment, conscience – this organ which is turned towards the face that is, without comparison, the richest and most beautiful of all those we know, and in which dwells happiness, unhappiness and nearly every pleasure and pain – this organ, finally, by which we sense our existence, since by it we sense our relations to external things, while by our other organs we only sense the relations between external things and ourselves.

Just as the organs of hearing and of sight would not be manifest to any man endowed with them, if there were no air and light, so too the heart, conscience, is manifest in man only when he is to be found among other animate beings, among other velleities acting opposed to or in conformity with his velleity. It is then that passions and desires crowd in, that the soul acquires its elasticity, [that it] senses itself, loves itself, esteems itself and recognises its source.

It is here that I feel I might need your indulgence. The little-trodden path that I take in these investigations will surely commit me to some apparent disorder, to frequent repetitions and often to illuminate the same ideas differently, so that we will become familiar with them, and so that we will not fall into the error of rejecting them because they are new, or of assenting to them because of a glittering appearance which perhaps derives solely from their novelty.

Just as sight and light give me ideas of visible things, whose relations I perceive by means of my contemplative or intuitive faculty – in addition to [perceiving] the laws that hold between these things and which derive from these relations – so too the heart and society, or communication with thinking beings with velleities by means of primitive causes and primitive principles of action, give me ideas of active velleities, whose relations I perceive by means of my intuitive faculty, in addition to [perceiving] the laws that hold between these velleities which derive from these relations. This shows me a part of the moral face of the universe.

But this organ, this heart, which gives me sensations of this face of the universe, differs from our other organs principally in that it gives us a sensation of a face of which our soul, our *I*, forms a part; thus, for this organ, the *I* itself becomes an

object of contemplation and therefore this organ does not give us merely, like our other organs, sensations of the relations which external things have to us, but also those of the relations that we have to these things. And from this the first sensation of duty results.

The individual man, as considered above,[26] in all the perfection of his intellectual faculty, does attain a notion of Divinity, but he cannot have any feeling of duty – neither towards God nor to anything else.

Just as the eye would be totally useless without light or visible things, the organ that I call the heart is perfectly useless to man without active velleities or society with such velleities through communicative signs.

On the one hand, it seems probable, from some insects, that there are animals which enjoy an organ we do not have that is turned towards a face of the universe unknown to us; and, on the other hand, [it seems probable], from scrutinising the economy of animals without prejudice – which is extremely difficult – that animals completely lack that organ I call the heart, and that the moral face of the universe is totally unknown to them: and this again strengthens my idea that the faculty of using signs to recall or communicate ideas pertains to the nature of the current constitution of man.

The eye is made for the visible face, so there must be light; the heart is made for the moral face, so there must be communicative signs.

So as not to be too obscure, I have so far kept close to received opinion and, equally, I have used the word *signs* to denote the means the soul utilises to recall ideas and those it uses to communicate them; but, before proceeding any further, it is now necessary to examine what these means or signs are.

When we pay attention to our natural gestures, that is, to the more or less noticeable movements of certain parts of our body which constantly accompany a certain idea or way of thinking – when we consider or meditate with great intensity of mind on a speech or action we propose to make, we perceive several movements in different parts of our body that are lively insofar as these parts are either close to the brain or well trained. When we reflect once more on the unpleasant and quite singular sensation that, for example, we have by combining the gesture of seriousness or despair with a laughable idea, then we will be convinced that there is very assuredly an analogy between our ideas and different parts of our body.

Those who are accustomed to gesticulating when meditating, that is, those who have a sufficiently agile or sensible head and body, can take these experiments even further, when, by thinking of some grave or majestic subject, they move their hand or some other trained part of the body in a gesture analogous to joy: they will perceive that the course of their thoughts changes, and this experience is so true that some strong and harsh phrase is often softened by this means, and, on the contrary, one gives energy and body to an expression either too loose or too soft.

Please note once more that all these gestures and all these muscular movements that accompany our meditations are undoubtedly natural; and that we gain them neither by education nor by imitation.

It is probable that the soul of man, whose velleity is so vigorous that not even what is impossible embarrasses it, makes use of the movement of the remotest

fibres of the brain for its signs of recall; it is more than probable that natural communicative signs come from the same source.

In order to recall ideas, the soul sets in motion the remotest fibres of the organ which are turned to its side; it recalls ideas to make them coexist; it makes them coexist in order to compare and contemplate them; but when it wishes to render or express these ideas, it directs the movement of the fibres outwards, and this movement is communicated to those parts of the nervous system which respond to these fibres; and then movements and sounds are produced in the form of gesture or word, and these are uniquely analogous to the ideas from which they originate. If, finally, these movements can imprint uniform and isochronous movements on the system of another individual, [then] these latter movements must represent the same ideas to this other individual's soul; and therefore, sounds, words or gestures must necessarily produce almost the same idea in the souls of all individuals of the same species. And this shows more than the possibility of a natural and primitive language whose words were both necessary effects and necessary signs of ideas.

I confess that our education and the current modification of society, so artificially composed, have put us so far beyond the state of nature that it is impossible to ascertain this system by as many experiments as the importance of the matter would amply deserve. But so that you do not think that the basis of this reasoning is entirely imaginary and completely lacks incontestable experiences, I am going to posit here some [experiments] haphazardly, while asking you to give each one all the requisite attention.

1°. When someone is close to someone else yawning, he will yawn too; but what is most remarkable is that this effect will occur even when he is blindfolded.

2°. When someone sees a horse, a dog or some other animal yawning, the effect will be the same.

3°. There are different movements of the nose that our muscles imitate despite ourselves, when we see them done by another person or even by an animal.

4°. When a person sitting at a table inadvertently cuts his hand, many of the guests will suddenly make contortions as if they had cut themselves, and, what is more, those who have not seen the blow will often make the same contortions.

5°. When we gaze at a crowd that witnesses some cruel torture, we will see a great number of men, and especially women, in whom the same muscles are producing the same movements in different parts of their bodies.

6°. If we look at a man whose heart is petrified by the sight or the sound of some object that is unpleasant to him, we will make the same grimace as he does, although this object is not unpleasant to us, and although we often do not even perceive the object. Sometimes the mime we make will remind us of the idea of an object that is unpleasant to us.

7°. When we attend a music concert, our hands or our feet, or other parts of our body, tap the beat, even while we are thinking about something else.

8°. At the first performance of some beautiful tragedy, how many people are moved, though they have not understood a word of what the actor said! Therefore, the cause of their emotion is in the gesture. How many well-played pantomimes affect [us] as much or even more than a play which is a little more than mediocre!

A verse in a language unknown to us, perfectly well recited, produces roughly the same sensation as it would produce if we knew the language.*

9°. When I go for a walk with someone whose legs are longer or shorter than mine, our first steps will not be isochronous; but in a very short time and without perceiving it, we will march in unison; and even when one of us intentionally puts the right foot and the other the left foot forward, we will have a disagreeable sensation of an unnatural effort.

10°. When you see a man angry or an animal in a rage, without either of them being able to satisfy their revenge or their rage, you will see palpitations of nerves and muscles with sudden, frequent and anxious movements: but all these movements are not governed by velleity nor premeditated by the intuitive faculty of the soul to result in a certain action or effect. These movements are the necessary consequence of the primitive movements of the remotest fibres which represent ideas, just as the movement of one end of a stick is the necessary consequence of the other end's [movement].

11°. When you meditate on the most abstract things, you will always perceive a relatively weak movement in the organ of speech, as well as in that of hearing, which necessarily communicate with each other; you will feel the beginning or the end of an articulate sound, an obscure word, a word conceived but yet unformed – a certain proof that the soul makes use of the movement of fibres when recollecting ideas; for although it does not have the act of will to express its idea, this first movement of the remotest fibres yet extends sufficiently to be noticed, as this experiment clearly demonstrates.

I conclude from these experiments, and from what preceded them:

1°. That we have organs, such as sight, hearing, touch, etc. whose remotest moving parts represent the ideas of external things.

2°. That the soul has the faculty of reproducing these movements so as to recall these ideas.

3°. That the soul has the faculty of propelling these movements of fibres into the extremities of the body and to the speech organ – and, from this, gestures and articulate sounds are born.

4°. That, therefore, an articulate sound is the necessary result of such an idea.

5°. That, therefore, a word expresses an idea.

6°. That the movement, produced in the [nervous] system of an individual produces movements that are analogous or conform to movements in the [nervous] system of another; that is, that the sound articulated by an individual, when

* Philostratus, in the life of Favorinus, said: διαλεγομένου δὲ αὐτοῦ κατὰ τὴν Ῥώμην, μεστὰ ἦν σπουδῆς πάντα· καὶ γὰρ δὴ καὶ ὅσοι τῆς Ἑλλήνων φωνῆς ἀξύνετοι ἦσαν, οὐδε τούτοις ἀφ᾽ ἡδονῆς ἡ ἀκρόασις ἦν. 'When he delivered discourses in Rome, the interest in them was universal, so much so that even those in his audience who did not understand the Greek language shared in the pleasure that he gave', and in the life of Hadrian the Phoenician: οὕτω τὴν Ῥώμην πρὸς αὐτὸν ἐπέστρεψεν, ὡς καὶ τοῖς ἀξύνετοις γλώττης Ἑλλάδος ἔρωτα παρασχεῖν ἀκροάσεως. 'He so successfully drew the attention of all Rome to himself that he inspired even those who did not know the Greek language with an ardent desire to hear him declaim.'[27]

introduced into the ear of another individual, gives the other person's speech organ the same movement as that which produced the articulate sound in the first person's speech organ.

7°. That, therefore, the same word, or the same articulate sound, expresses nearly the same idea in every individual of the same species.

8°. That, therefore, the original language was one and necessary.

9°. That, by his very nature, man has communicative signs or a determinate language; not a language whose words mimic the noise (for example) of the things they designate, but [a language] whose words are the necessary results of the movement imprinted on the speech organ by the initial movement used to represent ideas.

You will ask me what this first natural and necessary language was? You would need to ask this of the savages, if there are any; but, besides, I repeat that the labour of so many centuries has so enveloped nature within art that it rarely penetrates through; and when it does, it is still more or less stained with the dye of its covering.

If, however, someone wanted to undertake the laborious investigation of an original language, he would surely find it in sublime music, which is nothing but a tissue of its own species of words. When I go on to speak of human knowledge, I will show why this is so little understood.

The individual man, such as we considered him above, having no sensation of the moral face of the universe, therefore sensed neither the moral good nor the so-called physical good. All that he saw outside of him was an effect, a necessary effect of other effects, from which he perceived solely an initial cause. The coexistence of these effects, or any others, produced new effects which were equally and necessarily analogous to these coexistences. The composition or decomposition of things was neither good nor bad: it was just a change. Perhaps he had the idea of evil through that of pain, when he considered this idea as not altogether fictitious. But as soon as communicative signs, those natural to the essence of man, had given rise to a commerce of ideas and sensations between different velleities and different initial causes of action, man obtained real feelings of sufferings and pleasures from beings that were homogeneous to him; he compared the state of others to his own; and this opened up the idea of the good, both moral and physical, in the same way as the idea of the multiplicity of things and that of the succession of events had given birth to the ideas of extension and time. And just as, in the visible face, the idea of grandeur necessarily produces the idea of the infinite, so too, in the moral face, the idea of the good had to produce that of the better. The idea of the greatest or the infinite, derived from the idea of greatness, is not just an idea of something possible or imaginary; it is the idea of something necessary. When greatness is given, the real existence of the greatest or the infinite is necessary. When the good is given, the idea of the better or the best, which derives from it, is not just the idea of something possible, but of something necessarily existing.

Just as greatness, when applied to a real thing, has power as its cause, so too the good, when applied to the state of an essence, has goodness for its cause. From finite greatness, I ascend to the extension of the universe and thus from finite power to infinite power: and in the same way, I ascend from the good to the better, and thus from finite goodness to infinite goodness.

These are the first steps of a man endowed with the moral organ. What a distance from him to that individual who was at one time overwhelmed by an enormous power!

Imagine a blind man who could hear the weighty course of the sun's vast globe over his head; fright annihilates him. Give him sight, and he adores the agreeable object he once feared.

Three kinds of different sensations result from the organ of touch: that of impenetrability, that of heat, and that of pleasantness.

Three kinds of different sensations result from the organ of hearing: that of rhythm, that of sound, and that of harmony.*

Three kinds of different sensations result from the organ of sight: that of limit and contour, that of colour, and that of beauty.

Three kinds of different sensations result from the moral organ: that of motive or desire, that of duty, and that of virtue.

Remark, I pray you, that, within these four organs, there are four sensations which seem to have affinities [*rapports*], those of virtue, beauty, harmony and pleasantness, and likewise their opposites, vice, ugliness, dissonance and displeasure. It may be concluded either that the moral organ is in communication with the other organs, or that the faces of the universe which are turned towards these different organs are not so utterly dissimilar as they appear to us at first sight.

Both these conclusions are probably true; but I am making this reflection first and foremost to show that the intuitive or intellectual faculty must not be confused with the moral organ.

The intellectual or intuitive faculty forms the general idea of virtue from the sensation of desire or motive, and from that of duty. It forms the general idea of beauty from the sensation of limit and contour, and from that of colour. It forms the general idea of harmony from the sensation of sound, and from that of rhythm. Through its actions, it arranges its desires and its duties in such a way that virtue results. In its pictures, it arranges its contours and its colours in such a way that beauty results. In its music, it arranges sounds and rhythm in such a way that harmony results.

Menedemus of Eretria rightly claims that justice, prudence and courage are names for parts or different modifications of virtue.[28] And in the same way, the elegant and the graceful are names for different modifications of beauty; and the pathetic, the terrible, etc. are names for different modifications of harmony.

One piece of evidence for the fact that we attain sensations of love, hatred, esteem by means of an organ is that no man, however cultivated he may be, is mistaken in these sensations, no more than in the ideas of a tree, of a star, of a

* It must be remarked here, and it should be remembered in what follows, that harmony and melody are properly just one and the same thing. Harmony is the result of the relation of two coexisting sounds, or rather two ideas of two coexisting sounds. Melody is the result of the relation between the existing sound and the past or future sound. But if the idea of the past sound, and often of the future sound, did not coexist with the idea of the currently existing sound, there would be no melody. Therefore, melody is the result of the relation of two coexisting ideas, and thus, strictly speaking, the same thing as harmony.[29]

tower, or in those of *Do*, of *Re* [or] of *Mi*. Every man has the same sensations in proportion to the reciprocal perfection of his organs. But this is not the case with justice, prudence, courage, the elegant, the graceful, the pathetic, the terrible, mildness, harshness: these ideas are parts or modifications of virtue, of beauty, of harmony and of pleasantness, all of which depend, as I have said, on intelligence, which reduces them all to the general and relative idea of the good and the bad.

Good and bad are not contrary things: it is the modification of society and that of our actions in relation to it which has placed us exactly in the middle between what we call good and bad. What we call indifferent is between the two; and it is from this indifference that we have learned to begin measuring so as to determine the degree of goodness or badness of things and actions.

So far, I have considered the different sensations that we have by different organs, insofar as they seem analogous to each other, in order to make it perceptible that the moral face of the universe is manifest by means of an organ just as much as all the other faces are; but I add that this analogy is perfect, provided that we pay attention to the following.

We are passive in every sensation we have of the different faces of the universe; we are passive in sensations of impenetrability and heat, of rhythm and sound, of contour and colour, of desire and duty.

However, you will say, in the case of sensations of desire and duty, it seems to be slightly different, because we say, *I desire* and *I ought*.

In sensations of desire and duty, we are really passive, as long as we consider only the desires and duties of others, or as long as we consider desires and duties fulfilled in actions that are not ours; and the apparent difference between the nature of the moral organ and that of other organs results solely from the fact that, for this organ, the *I* itself becomes an object of contemplation,[30] just as all other known things are objects of contemplation for our other organs.

Let us suppose that this *I*, which now pertains to the moral face, pertained to the sonorous face, and that consequently the *I* was an object of contemplation for the soul by way of the ear, as it is now by way of the moral organ; our intelligent and contemplative velleity would have the faculty of modifying it in such a way that there would result a harmony between it and the audible objects outside of it, and we would have a distinct, intimate, identical and very unpleasant sensation of dissonance between the *I* and things outside of it.

This distinct, intimate and disagreeable sensation of dissonance, of which we may even form an idea, is the most perfect picture of the remorse of conscience, which necessarily follows the intuition of a bad action that has just been committed.

Having demonstrated by analogy to all our ways of perceiving, insofar as it has been possible to me, the great probability of the real existence of a moral organ, I will make some further reflections, which may serve to justify it; but, before everything else, I ask you to make this observation: that we have learned to call 'material' and 'physical' everything we have distinct and individual ideas of, and that if we had such ideas of something we call 'immaterial', we would even name this immaterial thing 'physical' and 'material'.

When we hear great and sublime chords in music, when we see something new, surprising and unexpected, when we hear or when we read the story of a striking,

heroic and generous action, then we grow pale, we shudder, we feel a kind of tightening of the heart, accompanied by an excitement in the veins, even in the remotest parts of our body.

When we see a virtuous man persecuted and overcome by his bad fortune, and imploring our help, then our tears will flow on relieving his troubles, out of either pity or pleasure.

Those, who have the good fortune to be sensitive enough to often experience these kinds of things will undoubtedly sense that the soul is never more passive than in these moments; and that, far from being the cause of these effects, the soul attempts by education – very often unsuccessfully – to restrain the tears and preserve a decent countenance in its body.

These effects, or these movements of parts of the body, necessarily have a cause; this cause must be either the velleity of the soul which inhabits this body or the movement impressed by some foreign body.

Let us suppose that there is no particular vehicle for the sensations of the moral face, and that ideas of these chords, of this novelty, of a noble action, of the persecuted virtuous man, only come to us by way of the eyes and the ears; all these objects, insofar as they pertain to the visible or audible faces [of the universe], are totally indifferent to us; therefore, the movement imprinted on the fibres of the organs of sight and hearing cannot produce in the body the prodigious effects which these objects do occasion in it; and thus these fibres must give a sort of movement to the moral organ, whose greatest efforts are effectively manifested in the region of the heart and the blood.

I could further add other things to demonstrate that even the organs of smell, taste and touch can communicate a kind of movement to the moral organ, but I will end this part of my letter by remarking that since the moral organ pertains by its very nature to the same face as the soul itself, there is the impression that it will never leave [the soul].*

It is evident by everything I have just said about the moral organ that the relation of each individual, either to the Supreme Being or to other acting velleities, is proportional to the degree of perfection or of sensitivity in the organ, which is the same as the degree of homogeneity, or possibility of a union of essence – which is spoken of in a *Letter on Desires*.[31]

It is also evident that duties result solely from these relations and are therefore in proportion to the perfection of the moral organ. It follows that he who has the least sensitive moral organ naturally has in fact the fewest duties to fulfil, and is, at the same time, the least perfect being, and this is the only genuine reason for the constitution of these unhappy men who have been made famous by atrocious cruelties.

Just as velleity, considered in itself and abstracted from the limited and finite effects that result from it, is equally strong and infinite in all individuals, so, on the contrary, the perfection of the moral organ differs in all individuals; and therefore any two individuals have in fact different duties to fulfil, not by way of relation to the artificial and mechanical laws of society, but by way of relation to natural laws

* See clarification *(*h)* [pp. 130–3 below].

and to the eternal order which derives from the coexistence of things. There are men whose moral organ is so sensitive, or whose conscience senses such distant relations, that, so to speak, they cannot be members of current society.

In killing Caesar, Brutus[32] committed a crime in the eyes of the people, and perhaps vis-à-vis society; but in the soul of Brutus this action no doubt conformed to the eternal order.

The greatest happiness to which it seems that man can aspire at all times resides in the increase of perfection or sensibility of the moral organ, which will increase his joys and bring him closer to God and the active principles subordinate to Him.

The greatest wisdom to which he can lay claim consists in rendering all his actions and all his thoughts analogous to the impulses of his moral organ, without troubling himself with human institutions or the opinion of others.

Timoleon[33] was the author and witness of the death of his brother, the tyrant of his country. As long as he lived in his garden outside Corinth, Timoleon was overwhelmed with sadness and remorse. Plutarch's reflections on this subject are just and remarkable:

> Ὅυτως αἱ κρίσεις, ἂν μὴ βεβαιότητα καὶ ῥώμην ἐκ λόγου καὶ φιλοσοφίας προσλάβωσιν ἐπὶ τὰς πράξεις, σείονται καὶ παραφέρονται ῥαδίως ὑπὸ τῶν τυχόντων ἐπαίνων καὶ ψόγων, ἐκκρουόμεναι τῶν οἰκείων λογισμῶν.... Ἀισχρὸν γὰρ ἡ μετάνοια ποιεῖ καὶ τὸ καλῶς πεπραγμένον.[34]

Let us now turn to the contemplation of society and to some reflections on human knowledge.

The being that has the faculty of sensing and acting possesses everything he has sensations of and upon which he can act (insofar as he can act on them). His power and his right are one and the same. His desire is the sole motive for his actions. But when, by means of the moral organ, he communicates with other individuals of the same species, his *I* is multiplied by the number of individuals he knows and which compose society.

Suppose that in primitive society all individuals were perfectly equal in intelligence, activity, etc., and that their moral organ was absolutely perfect, in such a way that each individual had sensations of the joys and sufferings of other individuals that were as strong as those of his own condition; it is evident that the fundamental and natural law of this society would be the law of equilibrium: that each individual would love every other individual like himself, that each individual would necessarily prefer the happiness of everyone over his own happiness.

Suppose that in primitive society all individuals were different in intelligence, activity, etc., and that there was no moral organ; by the right of power, these individuals would soon destroy each other, insofar as they were destructible.

Suppose once more unequal individuals, but now endowed with the moral organ in all its perfection; the natural law of this society would still be that of equilibrium, and, in each individual, the happiness of everyone would prevail over that of each individual.

But suppose unequal individuals, and that the perfection of the moral organ in these individuals differs so much that one of them has sensations of the condition of the others that are stronger or weaker than another of them has: and suppose

that the individual who has the most perfect moral organ out of all of them nevertheless has a much stronger sensation of his own condition than that of others; it will follow that each individual will evaluate the happiness of everyone in proportion to the perfection of his moral organ.

Let us now consider these individuals as physical and as inhabiting a body. These bodies have temporal needs, but originally it was so natural and so easy to satisfy these needs that the individual whose body was the most robust and whose moral organ was the least perfect would not have caused any inequality or sensible disorder.

But man, abusing his singular attractive faculty of the soul, came up with an idea of possession and the increase of his being, and this gave birth to the false and ridiculous idea of property. He refined this idea, forged representative signs of his possessions, and all equality was destroyed.[35] In this way, man became completely physical vis-à-vis society. A man who had a hundred acres of land and a hundred slaves formed a single mass, which was nothing, however, in comparison to the mass formed by a man who had a hundred thousand slaves and as many acres.

To prevent the total destruction which had necessarily to result from the continual collisions of these masses, the mechanism of legislation was employed.

Law, which intelligence created after considering those effects which pertain as a whole to the physical faces [of the universe], replaced the moral organ, which became useless, and consequently its use was forgotten. It is true that law, in all its perfection, would prevent every bad action as an effect, but the moral organ, in all its perfection, would make the cause impossible.

Man, born free, became slave to legislation,* which was useful and necessary to individuals only insofar as they pertain to the physical world.

From this follows that current society itself is just a physical object and that the laws which govern it have solely physical effects as their goal, and definitely not the internal and real well-being of each individual, which derives from his relations to the Supreme Being or to other acting velleities.

If men had taken on the task of modifying society so that there would be the least religion and the least virtue possible, it is evident that they could not have done better than they did. What actually remains of religion and virtue for us, we owe merely to the necessity by which legislation made it a principal cog in the machine it has proposed to construct; and yet it cares nothing for the nature of this religion or this virtue, as long as they do not produce physical effects that might collide with the uniform movement of its great automaton.

I have said elsewhere that religion results solely from the relation of each individual to the Supreme Being.[36] We have just seen that this relation is only manifested by the moral organ.

Legislation saw too late that the moral organ is gradually annihilated to the extent that men's activity was circumscribed, determined and administered by laws. It saw too late that, for the sake of stability in its domain, it needed this organ

* Ὁ δὲ νόμος τύραννος ὢν τῶν ἀνθρόπων, πολλὰ παρὰ τὴν φύσιν βιάζεται, 'Whereas law, despot of mankind, often constrains us against nature', said Protagoras in Plato.[37]

for three things: to give value to oaths; to evoke patriotism; and to inspire warlike virtues.

For the oath, religion was needed; but as its true source had dried up, the only recourse was either to supposed revelations or to institutional religions.

When it comes to patriotism, part of the legislative power was given to each individual; and to cultivate warlike virtues, man was released occasionally, just as one unleashes a mastiff, and – for a few moments bestowed his entire freedom – he was allowed to be as brave and fierce as he wished to be. Note once more that the glory and the laurels that were attached to his victories managed to elude the moral organ's sacred impulses.

Before going further, I shall be obliged to speak of religion; and as, in this work, I had no other goal but to see how far the light of my reason alone could lead me, I will treat religion as if I had never received any extraordinary illumination, not by education nor by tradition, not by faith nor by miracles; and I add that if I were to combat this century's spirit of irreligion, never, assuredly, would I take another route.

The relation of the individual to God pertains to the moral face of the universe, and therefore we sense it through the moral organ.

The degree of proximity of this relation, insofar as we can have any idea of it, depends on the degree of perfection of the moral organ.

Religion is the result of the relation of each individual to the Supreme Being.

This result, or this Religion, consists in the accomplishment of our duties towards God; and these duties can consist in only two things, at least in our current condition.

1°. In worship, which derives from the admiration and love that necessarily follow reflective contemplation, or rather from the moral sensation of the complete presence of this immense Being.

2°. In the care that we take to ensure that all our thoughts and desires towards the Supreme Being, who sees everything, are as consistent with the eternal order – insofar as we know it by conscience – as our actions appear to be to the civil order, to the eyes of society or of government.

If we abstract from everything that could be known by revelation, worship can reasonably consist solely in acts of gratitude. Prayer, considered as an act which is able to produce a favourable change in the will of the Supreme Being, does not enter into it.

Prayer presupposes an insufficiency in the one who prays, and a lack of will or of attention in the one we pray to. If the prayer is answered, the one who prays has changed the will of the other or has awakened his attention. But it would seem the utmost absurdity to apply such ideas to the idea of an almighty and ever-present God, Creator and Preserver of the universe. Yet, when revelation is manifest, proven or established, it is evident that, besides the fact that prayer is taught by it, such absurdity disappears, since the revelation itself already gives an example of a change of will in God, not only in regard to men in general, but even in regard to a specific individual. Hence, it follows that such a change of will is possible.

Besides: the insufficiency of a limited being, the sentiment of the possibility or the existence of a more powerful being, the possibility of a change of condition,

and the hope for such a change, all make prayer very natural for all imperfect beings who sense and reason.

If we further consider prayer independently of the possibility or impossibility of its effect in regard to the person to whom it is addressed, we shall see by a thousand experiences that all kinds of men, when suffering and in pain, often find in prayer repose and tranquillity, while their condition hardly seems susceptible to it. It is then that their moral organ is activated and this alone can distract them from every other sensation that comes to them by means of other organs; and it is then that prayer produces in every man almost the same effect as great and elevated thoughts produce in the soul of the enlightened philosopher.

I will not speak of the violent sensation experienced when the moral organ is active and turned towards the Supreme Being; those who have felt it know the astonishing effects that are then produced in the individual's entire system. Those who are unfortunate enough to have never had such sensations, either because of the natural weakness of their organ or because they have not cultivated it, will not understand me.

It remains for me to speak of established cults; and if ever it is right to defend oneself against prejudices, it is undoubtedly in a case as interesting as this one.

As almost all cults are grounded in revelations, we must begin by going deeper into what revelation is.

Revelation presupposes that man is not all what he ought to be and that the means God uses to preserve the life and temporal well-being of man are not sufficient to make him what he should be, but that God needs other means. After all, revelation presupposes that it is necessary for our salvation that we have relatively clear ideas of a face of the universe which is not turned towards our organs, or of a relation to God which pertains to another face than the one we know, or of some obscure truths pertaining to the face of the universe we do know.

In the first two cases, this revelation must necessarily be made to each individual, and by means of infusion:[38] to each individual, because, lacking common signs, no individual would have the faculty to communicate to us ideas of things that pertain neither to the face of the universe that we know nor to our current means of perceiving and sensing; by infusion, because all our signs pertain to the face of the universe that we know, and so therefore we could not acquire any of these ideas by memory or by the bringing to mind of any of our signs, which all pertain to our current organs.

In the final case, either God would actually manifest the object of this truth or the image of this object, and thus each of the individuals present would have the sensation of it; or God would put the fibres of our organs in motion to give us ideas analogous to this truth, and then each of these individuals would receive a revelation.

But God could manifest the object to one individual alone, or touch the fibres of one individual, and in this case, it would be a matter of faith. What is faith?

Faith is the faculty of being able to believe what is not believable, or of wanting to believe what does not appear believable, or of believing what appears believable.

In the first two cases, a particular act of the Supreme Being must be necessary; and in the final [case], each individual is equally passive, for it does not depend

on him that something appears believable to him; therefore, there must still be a particular action of God on each individual's soul; and therefore, it is very true that faith can only be a particular gift of God.

Besides, in supposing the necessity of a revelation, there is an infinite probability that the truths we should know pertain to another face of the universe than those we do know, since these truths derive from God's relation to us. In any case, it seems clear that no individual, whatever revelation he might have received or miracle he could perform, could have any right to the belief or faith of his fellow man, or to the relation that his fellow man may have to the Supreme Being.

When we wish to judge received religions, above all in centuries when legislators have confused and mingled them with political constitutions, we first have to make this reflection: that they do not show themselves at first completely naked, like the truth, but are sometimes ornamented by sciences and men's virtues, sometimes disfigured by contemporary laws, customs, mores, by art even, and sometimes they are degraded and sullied by fanaticism, vices and passions.

If the arts and sciences had been restored and perfected in Asia as in Europe, do not believe that Muhammadanism would now appear to us as absurd as it does.

Among the Ancients, the poets first seized upon a religion whose object was polytheism, and which was perhaps their work. In those times, poets were closer to the people and to the priests than the philosophers; and the latter were either too honest, or too prudent to want or even dare to snatch [religion] from the clutches of enthusiasm and fanaticism, so as to make it correspond, as far as it was possible, to true ideas of God and virtue.

With the Renaissance of the sciences and the arts, the Christian religion – unrecognisable as it left the hands of the Barbarians, after having passed through those of the Platonists – pertained, and this was partly by its nature, to the calendar, to chronology, to astronomy and, in this way, to all of the exact sciences. It proceeded hand in hand with these sciences, which, by perfecting themselves, took from religion the deformed rags in which it had been clothed by monastic stupidity. But this oddly mystical varnish, which it derived from a bastardised Platonic school, was too much to the taste of the priests, who loved better to colour it to their own fancy in front of the people than to see it effaced in the hands of philosophy.

It results from what I have just said that it is much more difficult to ascend to the source of a religion than to that of a philosophical sect. They both have taken on alien modifications over time, but since religions pass through the hands of all men, their accretions are all the more heterogeneous and monstrous. Therefore, it is almost impossible to represent the Christian religion in all its purity, and to form a just idea of the days and events of its birth.

To judge Christianity by the common run of Christians at present would be something most absurd. I have touched elsewhere on the lack of elevation of their virtues and their vices – a necessary consequence of the mixture of religion with civil virtue.[39] But consider, I pray you, how they conduct themselves towards God. On behalf of themselves or their princes, they ask him for a long life, riches, prosperity and victories, which they could obtain only at the expense of their fellow men, who are asking for exactly the same things from the same God. They want to let him believe that all their wars are merely defensive and that they do everything

they can to prevent or hinder injustices. The pagans acted more consistently in requesting the destruction of their enemies, each to their own tutelary or national god – gods who could get along badly. Finally, they are not ashamed to give thanks to the Being from whom the life of the entire universe emanates for having taken away, by his blessings, the life of some of their brothers, inasmuch as they could do such a thing. It must be admitted that, when regarding man from this viewpoint, he seems quite absurd and quite small. Yet he is not. Happily, his smallness is his own work and the necessary consequence of the mechanism of artificial society.

O quam contempta res est homo, nisi supra humane surrexerit![40]

Let us now consider the Lord's Prayer from a philosophical standpoint.

In it, the Christian begins by glorifying his Creator, insofar as the limited state in which he finds himself can allow him. He wishes for the coming of the kingdom of his God, that is to say, his approximation to the source of all things. He submits all velleity to the supreme velleity. He asks for his physical needs at the moment he speaks [to be satisfied], regardless of the physical moment that will follow. He senses his relation to God so much – that is, his conscience is so at rest with regard to what he desires and meditates on – that he dares to ask the all-present God to treat him as he treats his fellows.

You must admit that the Christian here appears [like] a subordinate God speaking to his father.

It is not a matter of your belief, or mine, or that of a third; my aim is, as I have said,[41] to discern where reason or the pure intuitive faculty leads us, and it is for this purpose that I will finish this article on revelation with the following reflection.

If we remove all that appears superfluous and false from the Christian Religion and if we reject all the interpretations men have had the impudence to give over what they declared to be the word of the supreme God, we shall find that the institution of the Christian Religion most resembles a revelation; that it is this religion alone which calls man to an individual happiness; that it alone detaches man from the bonds of artificial society, and brings him to himself; and finally, that it is the only one which considers the duties of the individual to society solely insofar as they relate to the duties of the individual to the Supreme Being, [for these duties] alone constitute the true happiness of the individual.

Moreover, the Christian Religion is still the strongest support for today's society in Europe. This reflection alone should suffice for the incredulous and make them look again at this religion as, at least, respectable.

I should have spoken also of the extravagance of the adoration of the stars, of animals and of plants; but it is enough to remark that the moral organ gives us real sensations of the Supreme Being's presence; that not only do the other organs communicate movement to the moral organ, but, conversely, this organ often communicates to the other organs; and from this derives the cause of those strange objects of worship we have seen among men.

I said earlier that perhaps poets were the authors of polytheism and of all those anthropomorphic divinities who occupied the heavens and hells of the pagans. Homer has been accused of having made Gods too human and humans too

divine;[42] but let us see once more whether this deification of men and this humanisation of Gods was such an absurd thing and if ever the bulk of men has much changed their way of thinking about this subject.

All healthy and well-adjusted men have a relatively distinct sensation of the real and necessary existence of the Divinity, without the intelligence even entering into it; and no man is an atheist. In the individual man, this sensation is extremely weak; in man in society, the moral organ opens up and the sensation of the Divinity becomes stronger.

Man believed that he clearly saw that the globe he inhabited was, without comparison, the most essential part of the universe. His idea of distance was limited, and defined by the range of his vision, defined by the real and direct measure of the things he could reach. There was no real measure for him to the stars; thus, in relation to the stars, the idea of distance was annihilated; the stars were only phenomena, divine beings, little subject to change, guardians of the universe, decorations of the celestial vault, torches to destroy the horrors of night's darkness; and although by combining geometric and abstract ideas, astronomers assigned measurable magnitudes to the distances of the celestial bodies, they were far too great for anyone to believe the astronomers about them. The earth's Globe thus continued to be of infinite importance: man was the most important thing on the earth. Who else could God resemble than man? What could a deceased great man be other than a God?

Ἓν ἀνδρῶν ἓν θεῶν γένος, ἐκ
Μιᾶς δὲ πνέομεν
Ματρὸς αμφότεροι.[43]

The greatest revolution that took place in mankind's ideas was when philosophers taught them, in an incontestable manner, that this globe was just a planet like so many others, that this important thing was a nothing, and that the universe was infinite. If this discovery had been made in centuries when the moral organ had still a little of its primitive vigour, by all accounts it would have changed the form of society completely; but falling in a century when this organ was tarnished, intelligence glimpsed a God very unlike those that were worshiped, so that their ideas of religion could be easily bent.

It appears that Pythagoras and his sacred sect really had such a reform in mind. Having acquired correct and true ideas of cosmology, and thus of the nothingness of our globe in relation to the infinity of the physical universe, they had completely different ideas of God. They attempted a modification of society, the basis of which would be, not the perfection of the organ of sight or that of hearing or that of touch, but that of the moral organ. If we attend to their ὁμοίωσις τῷ Θεῷ κατὰ τὸ δυνατὸν ('the resemblance as much as possible with the Divinity'), to their ἀρεταὶ θεωρητικαὶ καὶ καθαρτικαὶ ('theoretical and purifying virtues'), to their μετριοπάθεια ('the faculty of being affected in moderation by everything that happens'), to their λύσις ἀπὸ τοῦ σώματος ('detachment from the body'), to their ζωὴ τῆς ψυχῆς καθ ́έαυτὴν ('the life of the soul in itself'), then we will be convinced that their system was based on most of the truths that I have tried to prove to you in this letter.[44]

You know the result of their philosophy, and that Pythagoras's first school gave the example, unique in the world, of a society of higher beings, where virtue was necessary, vice impossible, and talents proportionate to the soul's elevation in these prodigious individuals.

But let us return again to the contemplation of society, or rather to [the contemplation] of its current modification, and let us, in a few words, try to develop the nature of this modification, to show its imperfections, and to see whether there are still means to remedy it.

The nature of the attractive force in man has given birth to a society which would have been able to stay common, if not for a certain amplification of its knowledge which has prevented individuals from remaining almost equals.

Men are naturally connected with each other in proportion to the quantity of acquired ideas they have in common; consequently, as soon as natural communicative signs develop, man had – through [sharing] the same food, through the same education, through daily converse – more ideas in common with those of his family than with anyone else. The whole of mankind was divided into families or groups, and these groups became heterogeneous to the extent that their languages and their rudimentary portions of knowledge were perfected. But as soon as this knowledge reached a point where it could produce universal effects, mankind's needs once more linked together several groups or several particular societies. But common, primitive society had been composed of individuals who were equal, or nearly so, whereas these particular societies, born according to a specific culture of the mind, were extremely heterogeneous – and this infallibly caused disorder. To prevent it as much as possible, the people thought up governments and gave these societies consistency and limits.

Everything is imitation among men; and to construct their governments, they took [the government] of the universe as a model. In line with their opinions about it, they imagined that the universe was governed despotically, even though this was impossible.

When God created *A*, he was the despot of *A*; when he created *B*, he was the despot of *B*; but when he made *A* and *B* coexisting, it resulted in relations from which derive laws that God cannot change without annihilating either *A* or *B* or both of them together. Thus, the universe is governed by laws, which derive from the nature that God has deigned to give to its different component parts.

In following this model, a society – or rather the sum of the actions of a certain number of men – ought to have been governed by laws derived from the relations which these men have among one another. And as men were almost equal in nature, their relations would have been the same, and we would not have seen those monstrous events, those catastrophes so disproportionate to the nature of man. We would not have seen Caius Marius sitting amid the ruins of Carthage.[45]

If we consider the strange disproportion that now exists between the individuals who compose society; if we consider the absolute necessity by which a legislator can inflict the same penalties and ask for the same actions of the rich, the poor, the learned, the ignorant, the strong and the weak, [by which he] must trust equally in the bravery of all his soldiers and on the fidelity of all his citizens, and finally [by which he can] possess as guarantee only the relation of each individual to

God – a relation which differs in every individual – [then] we will be convinced of the extreme imperfection of the current modification of society. Hence, one of two [options] is necessary: either individuals should be made more equal through public education, which is very difficult – or one should find a way of better knowing the nature of each individual and his relations. There are only two means to know better individuals and their relations: the first, which is very imperfect, consists in reducing the number of individuals by introducing slavery; the second consists in making it so that each individual comes to this knowledge himself – that is, in making every citizen see himself such as he is, and so, with respect to society, the rich do not appear poor out of avarice, nor the talented man inept out of indolence. All that the government could do to produce such an effect would be [to incite] patriotism.

Most of the imperfections of the current modification of society derive from the difference between the goal of religion and that of civil virtue: the former aims for the eternal and the permanent happiness of each individual, the latter for the temporal happiness of society.

Some have tried to mix religion and civil virtue together – which is impossible. The Asiatic kings, the Elder of the Mountain,[46] Popes, have endeavoured to direct these two principles into their persons – that is, they represented in some way both society and the Supreme Being: they were Prince and God.

But what is very peculiar is that never in history has there been a legislator who attempted the total identification of the idea of the Divinity and that of the homeland.

I cannot finish this part of my letter without a further word on the most dangerous evil which is, at present, attacking society, and which, so to speak, is more specific to our century than to any other.

There is nothing in the world more respectable than theologians and philosophers, such as they still exist in our day. But, on the one hand, [there are] the so-called Orthodox, whose stiffness, stubbornness, stupidity, lack of intelligence and outrageous ambition lead them to claim that all men should think and understand like they do, and who do not reflect on the fact that, if there were any proof against the Christian religion, the strongest, no doubt, would be that the word of God is in need of their interpretation, or that it is susceptible to infinite interpretations. And, on the other hand, [there are] those swarms of so-called philosophers, as vain and as little enlightened as those Orthodox who, by dint of errors, vices or sophisms, have silenced their moral organ for a while. [These so-called philosophers] preach irreligion and atheism more zealously still than the others who lay claim to orthodoxy and want to convert all men so that none could make them glimpse an all-present God whom they dread, or make them recall an organ which remains after this life – which will certainly inconvenience them to the extent they will have neglected it and it will [then] become more strongly susceptible to agreeable or bad sensations. These so-called Orthodox and philosophers, I say, are two harmful species who wage a cruel war on each other. If this war was yet of such a nature as to be able to last forever, at least evil could not make it worse; but as the one who can make his adversary ridiculous will benefit in our century over the one who can only harm the other, it follows, that the [so-called philosophers] will probably have the

upper hand – and this offers a hideous and sad sight of an assembly of men where there will no longer be morals or religion at all, unless there is success, on the one hand, in purifying the Church of these hard heads by admitting to the priesthood only enlightened men, made human and worthy of their order by a thoughtful education; and, on the other hand, in managing to make philosophical truths so palpable and so popular that the miserable sophisms of those of the second species no longer persuade even children.

But it is now time to pass on to a few more reflections on human knowledge.

I have shown above[47] that the faculty of communicating ideas to other homogeneous beings adheres to the nature of the present constitution of man. I am well aware that words no longer have this primitive property of being the pure effects of the initial ideas of objects. The difference between organs among the different nations must necessarily have occasioned some difference of dialect; but, in the beginning, these differences were not great enough to prevent mutual understanding. Over time, language was cultivated differently in different families, and, among peoples far apart from each other, words naturally became representative signs; and when these representative signs had become so dissimilar and conformed so little to primitive signs that it was impossible to understand one another, people had recourse to the imitation of objects to serve as interpreter and the first writing. This crude imitation was insensibly followed by symbolic figures; and finally, inequality between the cords and pipes which composed crude musical instruments gave rise to the idea of representing sounds by lines, in order to reproduce these sounds in the organ of the reader's voice.

The first writing was the imitation of objects, the second the representation of the object, the third the representation of the sign attached to the idea of the object.

The idea of rhythm is perhaps the first of all our ideas and [is perhaps acquired] even earlier than birth, for, by all accounts, we owe it solely to the sensation of successive undulations of blood in the vicinity of the ear.

The primitive word, in its quality as sound, has been considered as the vehicle of ideas; and then the idea of rhythm was fused with that of sound to produce that of harmony; and finally, with the idea of sound, in its quality as a vehicle of ideas, and even in gestures, this produced the pathetic and gave birth to vocal music, versification, part of rhetoric, and dance. And on the above I have three reflections to make.

The first is that the linking of these heterogeneous ideas effected by intelligence dates from the highest antiquity and its provenance is much earlier than anything we call science.

The second is that the fusion of these ideas already gave man a mute knowledge of beauty and of a crude sublime; we see this in the style of the first products of peoples and in [the style] of Daedalus's statues, which had something divine despite their crudeness.[48]

The third is that the primitive word, considered as sound, and, in this quality, encompassed, changed or embellished by rhythm and harmony or melody, must have, in a short time, lost its original character, [namely] the immediate effect of the idea that it represents. And this is the reason for the difficulty which would arise if one were to try to investigate the primitive and real language of men by way of music.

Regarding the other arts which derive from man's imitative genius and whose perfection is founded on a singular property of the soul, some idea of them has been given in a work on sculpture which appeared a short time ago.[49]

The science or knowledge of man consists in the ideas that are acquired by means of the senses, and in [the ideas] of the relations that hold between these ideas. The former [ideas] are isolated and represent isolated objects; the latter derive from the coexistence of that number of the first [kind] which the intuitive faculty can embrace at once. The totality of knowledge, or science in general, is therefore composed of the sum of acquired ideas and of ideas by relation.

If man had ideas of all the objects which compose the physical or sensible universe, he would not be learned – unless he were to have some ideas of relation that were similar or analogous to the relations that really hold between things.

If man had ideas of all the relations and all the combinations of these objects, he would resemble God, both in regard to science and in regard to the state of the universe insofar as we know it, and his science would be perfect.

The extent of human knowledge in general, or rather the state of the human mind, will therefore be measured by the quantity of primitive ideas acquired by the organs, multiplied by the quantity of ideas of relation; but as the perfection of science, or knowledge, is furthermore proportionate to the quantity of ideas of relation, in contrast to that of acquired ideas, it follows that the perfection of the human mind in a century is [related] to its perfection in another century as the product of the acquired ideas multiplied by the ideas of relations, and thus as the quantity of the latter vis-à-vis the former.

The science of man, which is properly one, has gone on to form countless branches, to the extent that the intuitive faculty has found specific clusters of homogeneous or homologues objects, whose ideal coexistence was the easiest to achieve, or whose particular relations were less distanced than between more heterogeneous objects.

For example, the contemplation of trees and plants gave birth to botany; that of the stars gave birth to astronomy; and, although in nature there are necessarily definite and perfect relations between stars and plants, these relations seemed so far apart, and our intuitive faculty found it so insurmountably difficult to make the ideas of these different objects coexist that it was necessary to make two distinct sciences of astronomy and botany.

In former times, several sciences and arts, which now intermingle mutually with great ease, were so demarcated and their connection with other sciences was found to be so absurd that, among the Egyptians, a science or an art was assigned to one family, and [decreed as] hereditary by laws.

Over the course of time, there arose the thought of applying one science to another neighbouring science. Democritus, Hippocrates, Plato, Archimedes and others tried it with success;[50] but there were principally two reasons which prevented them from attaining the great truths of our day, which we nevertheless owe to the same procedures: the first, that geometry and arithmetic were still in their infancy; and the other, I will speak of below.

Pure geometry and arithmetic are the only branches of human knowledge where science is perfect, since the objects of these sciences are all our own creation; since,

consequently, the object and the idea of the object are but one and the same thing; and finally, since each new idea is an idea of a perfect and determinate relation.

This would be the place to speak to you of the dynamic laws of human knowledge; but as I propose to treat this subject in a slightly more detailed way elsewhere,[51] I will here make just a few reflections.

The science of man, or the human mind, appears to move around perfection, like comets around the Sun, by describing very eccentric curves: it likewise has its perihelia and its aphelia; but, by means of history, we know only about one and a half of its revolutions – that is, two perihelia and the aphelion which separates them.[52]

I note that, in every perihelion, there has reigned a general spirit which has spread its tone or its colour over all sciences and all arts, or over all branches of human knowledge.

In our perihelion, this general spirit could be defined by the spirit of geometry or the symmetrical [spirit]; in the perihelion of the Greeks, by the moral or sentimental spirit, and if I were to consider the style of the arts among the Egyptians and the ancient Etruscans, I should soon perceive that the general spirit of the previous perihelion was that of the marvellous.[53]

This universal tone is not evenly favourable to every branch of human knowledge in each perihelion. Direct a ray of red light on different colours, it will embellish the red, but the other colours will be sullied, tarnished, or more or less changed.

In our perihelion, it is obvious that sciences will be perfect according to their degree of applicability to geometry or arithmetic. Compare a line to a ray of light, to a lever, a number to a possession, or both to movement and duration; optics, mechanics, economics, astronomy are perfected; but morality, politics and the fine arts, these tender flowers, formerly so fresh and so brilliant in the soil of Athens, fade and dry out in our arid climates, in spite of the most learned and careful cultivation.

In the perihelion of the Greeks, or of the moral or sentimental spirit, the ideas of love, gratitude, ingratitude, hate, vengeance [and] jealousy were ideas of relation almost as clear and as perfect and determinate as those of a triangle and a circle; but were you to apply, as they did, love to attraction, horror of the void to elasticity, indolence to inertia, and you will see to what physics will be reduced.*

Regarding that spirit of the marvellous in the first perihelion, I have no need to remark on the effects of its influence on human knowledge; but some arts benefited

* Those who have studied and meditated on the art of warfare, and especially tactics, can compare the state of this science in our centuries to that of this same science in the centuries of the Greeks: they will see to their surprise how much the universal tone in every perihelion has influenced this science, and that the whole of tactics for the Ancients was actually only based on the moral condition of the individual, whereas for us the foundation of this science consists properly in the application of the idea of a geometric figure, or that of a mass of a certain number of individuals who can act in a given way. The moderns who have written on the most famous Greek and Roman battles did not reflect in this way, it seems to me; and they looked in Leuctra, in Cannae and in Pharsalus for – I do not say more art – much more geometry than was there.[54]

from this crude sublime, which is properly just the coagulation of a specific number of ideas that are either disparate or far distanced from each other.

The force of this universal tone in each perihelion is made evident by the fruitless labours of those singular men who arise from time to time in a perihelion in which they appear as strangers. Democritus and Hippocrates had the same purpose as we do in their desire to construct a philosophy on exact experiments; Archimedes already applied his admirable geometry to mechanics. But none of them could achieve anything contrary to the reign of this universal spirit.

From what I have said, it follows that the degree of perfection in our knowledge does not only increase in proportion to the augmentation of acquired and isolated primary ideas, but above all because of an increase of quantity of ideas of relation.

We have seen that in each perihelion there was a favourite science, more analogous to the general spirit than the other sciences, and which was perfected to the highest degree. This science – so refined and so embellished – was applied to all the others, regardless of whether it was applicable to them in this way or not, and this produced a prodigious quantity of new ideas, false and disparate to the extent their application was absurd, and, always, nearly so far apart that the intuitive faculty could not compare them. This is how the quantity of primary and isolated ideas increases towards the truth, but [the quantity] of ideas of relation diminishes proportionally – and this establishes the false. But man, who by nature loves the truth, in the end hates the false: it leaves him disgusted with everything, and leads him by frivolity into indolence, it prevents him from uncovering anew the truth, so completely masked by the prodigious quantity of useless ideas.

It is here that I should lead you into the obscure and remote source of this universal spirit in each perihelion:* but since, after so much patience on your part, I dare not offend you with the disgusting picture of our sad aphelia, I will finish my letter by gathering together once more those truths it contains that interest us the most.

The human soul is an eternal and indestructible essence. It has God as author. [As it is] attached to some organs, it has ideas of faces of the universe analogous to these organs. It has an intuitive and intelligent faculty by which it compares all the ideas it receives, provided they are not too far apart. It has a principle of activity called velleity, which seems to have no limits; but the intensity of the actions which emanate from it is proportionate to the vigour of its organs in relation to things outside of it. Losing these organs, it loses every idea of the faces of the universe which had been turned to its side. It seems probable that [the soul] is already attached to several organs which will be of better service in what follows.

The moral organ, which is an object of contemplation for itself, cannot be lost. The organ of the intellect, or the faculty which contemplates and compares, looks at all possible faces of the universe and therefore seems to be equally attached to the soul. It[55] has an insatiable desire to see, rather than to know. It is made to contemplate, and to enjoy. It does not seem to be made to know. It is very likely that it will

* See clarification *(*j)* [pp. 133–4 below].

spend eternity in the successive contemplation of the infinity of different faces of the universe. Whatever face it regards, it will always carry within itself either Paradise or Hell; and it has nothing else to hope for, nor to fear. Its moral organ will serve [the soul] as a severe judge. This Paradise or this Hell is neither punishment nor reward: they are the necessary consequences of the constitution of the individual. Legislation must reward and punish to rectify successively the imperfections of its work; but God does not correct the universe. Crimes result from a modification of members of society contradictory to the current modification of the society. Crimes can be the effects of vice. Vice is vice only relative to the vicious. With respect to God there can be neither vices nor crimes. At first sight, this assertion might appear difficult to you, and thus I am obliged to clarify it in a few words.

We call 'existent' that of which we – composed in the way we currently are – can have direct sensations.

We call 'possible' that non-existent, whose existence would imply no contradiction, but of which, as non-existent for us, we cannot have any sensation in the state we are in.

We are not [currently] considering the fact that all existents and all the possible together constitute the universe; that the existent and the possible derive equally from the infinite relations which hold between the things which compose the universe; and that, therefore, the existent and the possible are but one and the same thing before God.

We are not [currently] considering the fact that the possible existent exists for us only relatively to us, but, in relation to the universe and to God, the existent is but possible, or rather, that every possible is an existent.

God has created active, free beings, whose velleity appears infinite, but whose active freedom is proportionate to their relations to external things. These relations are infinite in number; and, from this, an infinity of different possible modifications of the velleity results, as well as [modifications of] actions of men. The active freedom of man can act in every sphere of his activity; but, whatever gleam from this sphere [such freedom] realises or wants to make exist, [this] is the only existent of all possible gleams for man alone; whereas, in relation to God and the universe, it is equally either existent or possible along with every other gleam from this sphere.*

The existence of active and free beings is the coil-spring and life of the universe: and let us suppose that all such beings were what is called vicious, it would change nothing in the whole, since the sphere of their activity is limited by their reciprocal relations; and therefore no individual can succeed in changing or destroying the essence of any other individual. Let us suppose all these beings [to be] virtuous, it would change nothing at all, because none could succeed in amplifying the essence of another.

I conclude from all this that, before God, strictly speaking, there are no vices and therefore no crimes. But it is infinitely important to the individual whether, in his sphere which will probably enlarge throughout all of eternity, his activity is directed towards the Supreme Being and towards order, which he knows by conscience – or

* See clarification *(*k)* [pp. 134–5 below].

whether it moves further away from it from century to century, while this organ, this conscience, becomes more sensitive and more active solely for the purpose of making him see all the more keenly the immense distance that separates him from his happiness.

The man who is called vicious is and will be less happy and less perfect due to a necessary consequence of the coexistence of things. The man who is called virtuous is and will be necessarily happier and more perfect for the same reason. We would have had no idea of vice, nor therefore of crime, if man were not inclined to become almost completely physical by this supposed aggrandisement of his being. But it will be said, without this apparent and artificial aggrandisement of being, there would have been no arts! I admit it: but does man need the arts? Yet what a prodigious number of ideas does he owe to the arts and sciences! I admit it once more: but do you believe that all these intelligences would not have been refined by love, by friendship, by their relation to the Supreme Being? Do you believe that they would not have made as many discoveries concerning the moral face of the universe as we have done concerning the visible or audible face? Would it not be better, oh sybarites,[56] to have neglected the tangible face where pain resides? Fortunately, though, pain does not pertain to the visible face, in which we have had our greatest successes: for then life would have seemed agony. But I sense that I follow a little too much the style of Juvenal:[57] I apologise. I fear I am treating mankind with some injustice. When the morning star shines weakly, the eye scarcely sees objects close by; but when the sun appears, the visible universe is revealed. Perhaps the vehicle for the sensations of moral essences will likewise have more energy after the twilight of this life; or rather, perhaps the organs of conscience and the heart cannot unfurl within our coarse envelope; they are wings, still unformed and hidden under the skin of the nymph.

I have the honour to be
Sir
your most humble and obedient servant.
This 9th of January 1772.

Addition and Clarifications[58]

Addition

The author of the letter on man and his relations has benefited from many reflections made on his small work, and, above all, some sensible and just critiques that a small number of enlightened judges have deigned to make.[59]

The author has been accused quite generally of being obscure, and this accusation is not unexpected. Perhaps obscurity is a vice of style in him. Besides, all minds are not composed like that of the person to which this letter was addressed.[60] Moreover, this obscurity could be the fault of a lack of understanding in the reader; it can result from the grandeur of the subject that is treated, and finally anyone who hazards to say something new is obliged to create his own language, which few readers are happy to learn.

If obscurity pertains to his style – that is, his mode of thinking – there is no remedy. For, once constructed, the way of thinking in a man is immutable.

If it pertains to the ignorance of the reader, it becomes difficult to know what to do.

If it derives from the grandeur of the subject, one has only to redouble one's attention and one will perhaps see clearly.

If this strange language appears a little barbarous, a little indulgence is necessary. Thus, to make it a little more intelligible, all that remains for the author to do is to fill in some gaps that are not easily navigated; to reinforce some demonstrations which did not have all the force and all the evidence of which they were capable, and finally to give a little more precision to the expressions he uses in conversation with himself and which, therefore, are truly obscure for others.

The author is pleased to have satisfied in some way these three things with the following additions, at the head of which he is placing a general reflection that could serve as a preface.

*Clarification (*a)*

General reflection that could serve as a preface.

Among the small number of people who might be amused by reading this book, there will be many who, in the midst of reading it, will be convinced of several truths it contains, but after having put the book aside, will return either to their doubts or to errors that, through long usage, they have become accustomed to adopt as established truths.

It should not be concluded from this effect that my arguments are false, that my conclusions are badly drawn, that the arguments which lead to these conclusions are too arbitrary, or erroneous or equivocal.

The only reason for this effect lies in the imperfection of our limited intelligence.

Perfect conviction is the feeling of absolute truth. Absolute truth for us is the identity of the idea of a thing and the essence of the thing.

We have a perfect conviction of everything that we call an axiom: a whole is greater than [each of] its parts, a whole is as big as all its parts together. When I draw a straight line perpendicularly to another straight line, I have a perfect conviction that the angles on both sides are two equal right angles. It is a truth. By combining this truth with other equally clear truths, I attain knowledge that the three angles of a triangle are equal to two right angles. By combining these truths with others, I find that in a right-angled triangle the square of the hypotenuse is equal to the other two [squares], and so on, and as long as I use auxiliary lines in my demonstrations, my conviction will be almost equally perfect. But when I erase

all these lines and keep in my mind solely the right-angled triangle, my memory recalls to me that, by several operations of my reason, I came to the truth that the square of the hypotenuse is equal to the other two squares. But being unable to link together in a single instant all of the truths through which I passed to reach it, it is far from the case that my conviction is as great as [the conviction] I had of the primary simple truths I started with. Yet all truths from the simplest to the final discovered truth are not only equally true, but the essence of the triangle would be just as absurd if one of these truths were false as if any other of these truths were false, and therefore all these truths together make but one single truth.

I have reasons to believe that there can be men who have as strong a conviction of the property of the square of the hypotenuse as I do of the simplest axiom, but I doubt that when any limited intelligence sees a triangle, it can see all that it is, i.e. the sum of all the properties that its nature can admit.

If, instead of using figures or auxiliary lines, I use algebraic formulae in my enquiry into or demonstration of some new truth, the conviction will become still weaker, since these formulae are only signs of truths which are strictly only a little more analogous to the truths they designate than words are to the things they represent. However, it is undeniable that if algebraic operations are undertaken with all the requisite attention, the result of these operations is not only as perfectly true as the simple truth from which I started, but that its result is only one and the same as this simple truth considered from another side.

The common run of mankind supposes a more and a less when it comes to truth, which is impossible. There is more and less when it comes to conviction, and conviction will always be in inverse ratio to [the length of] the path traversed from the simplest axiom to the truth that is sought or demonstrated.

If we could concentrate every momentary conviction of every truth that is encountered, we would have as strong a conviction of the result of all these truths as we do of the simplest of these truths that served as basis and principle.

If at the end of a few billion syllogisms we could come to know or to demonstrate the true cause of the apparent irregularity of the position of the stars, the conviction of this truth – which is, in fact, nothing but the simple truth I set off from, but considered in another way – would be null. But the conclusion that this truth would be null is of the greatest absurdity. In complicated reasoning, man always seeks automatically to relate the final conclusion back to the simple truth from which he started. He does not sense this relation, and therefore his conviction is destroyed, and he doubts, but if he were always to take the penultimate conclusion for an axiom, as it is, he would become accustomed to perceiving the greatest and most remote truths.

I believe this is enough to show the reasons for the lack of conviction that we often have of the most indisputable truths.

*Clarification (*b)*

On p. 90 I say that if the object outside of man were not such as it in fact is, it would not produce [a primitive idea] in the soul through its media, through the organs – that is, through all that separates it from this soul [and] the sensations that

it produces there. Yet it produces these sensations, so it is, among other things, what it appears to be. That is, this object, or rather matter, is such that it must appear extended to the eye and to touch; that it is such that it must appear visible to the eye, audible to the ear, impenetrable to touch, etc.

*Clarification (*c)*

Here is something that can serve as a corollary to this passage. Since what cannot be decomposed without the extinction of its essence is eternal by its nature, it is even more the case that what cannot be decomposed at all is eternal by its nature. Now the *I*, consciousness of the *I*, what constitutes the *I*, is simple. Therefore, what constitutes the *I* is eternal by its nature.

*Clarification (*d)*

All that is is at each moment in a determinate way, and it is contradictory for the same thing to be at the same time in two different ways. Therefore, what exists by itself or by its essence is at a given moment in a determinate manner, and it is contradictory for it to be at this moment in a manner that is otherwise determined. As it exists by its essence, the manner in which it exists pertains to its essence. But the manner of existing that pertains to its essence at one moment must pertain to its essence at every moment. Hence, since it is contradictory for it to exist in another manner at the same moment, it is contradictory for it to exist in another manner at any moment. Therefore, what exists by itself exists eternally in a determinate way, and therefore it is immutable. It exists necessarily, moreover, because it would be contradictory for it not to exist.

Let us posit that what exists by itself is *A* at one moment, it has within itself all that it needs to be *A* at this moment; it is *A* because it is contradictory for it not to be *A* at this moment. But since existence is the essence of *A* at one moment, it is of its essence at every moment.

NB. The beautiful proof contained in this note is taken almost verbatim from the Metaphysical Essays of the late Rev. 's Gravesande, a work in manuscript.[61]

*Clarification (*e)*

Paragraphs to add.
We can demonstrate the same thing this way:

We have just seen that what exists by itself exists in a determinate way eternally. Consequently, its modifications cannot be changed. Now, matter is figured and capable of figure by its nature. Therefore, one of the modifications of matter can be changed to infinity, therefore matter does not exist by itself, but by something else.

Once more. What exists by itself and whose essence is to exist is, as we have just seen, immutable by its nature. Therefore, it is not susceptible to augmentation; therefore, infinite in nature. Now, matter is capable of figure by its nature; therefore, figured by its nature, and thus limited and discrete by its nature; consequently, it does not exist by itself, but by something else.

*Clarification (*f)*

The spatial relation of things is the result of the state of equilibrium and perfect rest of the whole, or [more precisely] the whole at each individual moment.

Inertia is thus the measure in everything of the force with which this thing strives to preserve its rest or its current spatial relation; and this force depends immediately on the energy of the composition of this thing with respect to all that surrounds it.

Now this energy depends directly on the quantity of matter, and on the reciprocal position of the particles of matter which compose this thing;[62] therefore, the force of inertia is properly the force with which a thing is what it is.

So, inertia is not a faculty that would make a body persist in its state of movement or rest.

1°. Neither motion nor rest causes the state of a thing.

2°. The faculty of persistently changing the spatial relation in succession would be totally contradictory to the faculty of persisting in rest.

3°. We have seen before that motion in a body is a continual and present action, or the effect of an external action.

*Clarification (*g)*

Rest in a body is the state of equilibrium between the action of this body and all the actions of everything that surrounds it. If it is only necessary to overcome this equilibrium in order to move this body, an infinitely small force will suffice to put each body in motion.

Each body is a composition of particles of matter. Every action on a body does not only tend to move it, or to change its spatial relation, but it tends, above all, to destroy it insofar as it is composite or rather to dissolve it or to disturb the reciprocal actions of its parts on each other. Suppose a perfectly soft body – that is, whose internal coherence, or rather that of the parts which compose it, would be null – it would need only an infinitely small force to destroy its composition and to make it alter its spatial relation. Suppose a hard body whose mass or rather internal coherence is given; suppose that, by some obstacle, moving or changing the spatial relation of this whole body is made impossible, it will follow that the body, as a composition, will be destroyed if the force acting on it surpasses the total internal coherence, which is the measure of its indestructibility, or that of its force of inertia.

*Clarification (*h)*

Note. I have the right to assume that my reader is convinced of the regularity of most of the reasonings found in this work, and principally of those I have used to demonstrate the most important truths; but at this point it will be necessary to make a reflection that may serve to smooth a difficulty which has hindered the progress of the human mind for so many centuries; I am speaking of the incomprehensibility of what men have called the spiritual or the immaterial.

When[63] we reason in the following way (and it is in this way that we reason more often than you think), 'what is neither tangible nor visible nor audible is nothing,

and therefore can never produce any physical effect, that is to say, any effect that would be tangible, visible, etc.', this reasoning is worthless, without doubt. For suppose a blind man reasons as follows, 'what is neither audible nor tangible, is nothing, etc.', what remains of that immense space, all those suns, all those worlds, of which a blind man is not capable of having the least idea! But let us try to clear up the matter as much as possible.

All that is is essence. Insofar as an essence relates to the organ of touch, we call it a tangible essence. Insofar as it relates to the organ of sight, we call it a visible essence. Insofar as it relates to the organ of hearing, we call it an audible essence, etc.; and generally, insofar as it relates to all these organs, we call it matter. To define this matter as philosophically as possible, we are only able to draw from our sensations, and from our ideas which are the results of these relations; and from this are derived the attributes we give to this matter, such as extension, impenetrability, etc. or rather tangibility, visibility, etc.

The accuracy of this definition of matter made it more applicable to geometry; and finally, treated by a genius like Newton, it produced a true physics, whose foundations were inalterable. This great man's sectarians, proceeding in his footsteps, furthered the domain of truth in physics to an astonishing degree: but as they progressed in this science, the idea of matter unnoticeably acquired a rigidity which it assuredly did not have in Newton's mind.

Let us now suppose that a man deprived of the organ of touch himself gave the name matter to all essence which related to his organs, which would be manifested to him by his organs; it is obvious that impenetrability would no longer enter into the definition of matter. Let us suppose a blind man gave the name matter to all essence that could manifest its relations to him, then extension would no longer be an attribute of matter. Let us suppose someone endowed with a hundred other types of organs, all of which have other and different relations to essence, gave the name matter to all essence insofar as it related to his organs, matter would have completely different attributes.

Now, let us note the apparent contradiction and absurdity resulting from these suppositions, which in themselves are by no means absurd. In the first case, matter would not be impenetrable: what idea is to be formed from a matter without impenetrability! In the second case, it would not be extended: what idea is to be formed from a nature without extension! In the third case, it would have nothing in common with what we call matter, that is, with essence insofar as it is essence in relation to our present organs: what idea is to be formed from a thing of which we are unable to either affirm or deny anything!

An object is not tangible because it is visible, it is not visible because it is audible, etc. Light is only light for the eyes. Sound is only sound for the ear, and essence is visible, tangible, audible etc. only by its relations to touch, sight, hearing – that is, because it is what it is.

Thus, when it was demonstrated that the soul is not matter,[64] it was demonstrated that the soul is not essence insofar as essence relates to touch, sight, etc. When it was demonstrated that man is endowed with an organ distinct from his five other organs,[65] it was demonstrated that essence has relations to us manifested through other means than sight, hearing, touch, etc., and I have named this means,

insofar as it pertains to us, the moral organ, by which we receive all our moral sensations.

But here is a powerful objection that could be made against me.

You say that essence has relations to our current organs, and therefore that it is visible, audible, etc., [and] that we have dubbed this essence, insofar as it has these relations, by the general name, matter. You have shown that the soul is not matter, but yet it is, and hence it is essence, but essence has relations to our organs, hence visibility, tangibility, etc. These relations however derive from the nature of essence, therefore the soul must be visible, tangible, and so on.

To respond fully to this reasoning, it must be shown

1°. that all essence does not have a relation to us and our organs, which can be manifested to us by our organs.

2°. that it is very possible that an essence – by a quality which could not be manifested to us by our organs – can act on essences which have qualities that are manifest to us by our organs.

In[66] order for a person to have a sensation of some other essence outside of him, three things are necessary:

1°. It is necessary that this essence can act on what is between it and the person.

2°. There must be something between it and the person, what I call a vehicle of action.

3°. It is necessary that the person has an organ analogous to this vehicle, that is, capable of receiving its action.

If one of these three things is missing, there is no sensation. For example:

1°. A perfectly transparent body cannot reflect light. Therefore, there is no vision, for lack of the object's action on the vehicle.

2°. Put a chime in a vacuum, there will be no sound, for lack of an intermediary vehicle.

3°. For a person who is deaf and blind there will be neither sound nor vision, for lack of organs analogous to the vehicles.

A large piece of crystal – the purest and most perfectly polished – will be invisible, because it will allow all light to pass through; and we owe its relation to the organ of touch alone for any knowledge of its impenetrability. With touch annihilated, will this large piece of crystal then become nothing?

The air – this agent so necessary for everything that breathes, and so terrible when its pressure ceases – will it thus be nothing without touch and hearing? But even more, magnetic effluxions whose effects are so perceptible and so quick, will this be nothing because it is an essence which precisely manifests no relation whatsoever to any of our organs, or because there is no vehicle between it and us that is analogous to its activity and our organs?

It is from these considerations that I can conclude with confidence that we are certain of the existence of some essences which have little or no relation to us or to our organs, [but] which can be manifested to us by our organs.

As for the second proposition, its proof is quite simple, for let[67] us suppose a person who has been deprived of the organ of touch and endowed with that of hearing, it is clear that essence is not manifested to him by touch, and therefore, for him, it is not impenetrable. But [then] a hammer strikes and acts on the bell, insofar

as this hammer and this bell are both impenetrable, or insofar as both pertain to the tangible face. Yet, the hammer's action on the bell manifests the relation of the bell to the man, insofar as it pertains to the audible face.

Suppose a person deprived of the organ of touch and placed in front of an immense block of the purest crystal. This crystal doesn't exist for him, since he cannot see it for lack of the crystal's action on that what separates it from the person, for lack of an analogous organ to sense it. Suppose another block of the same nature strikes against the first and breaks it into a thousand pieces; at that very moment, these two crystals will be visible and audible to this person; and thus, [this happens] by the action of these two blocks upon each other – insofar as they are both impenetrable and solid, that is, insofar as they have a common quality of which this particular person could never have the slightest notion whatsoever.

Let us assume that our man is a philosopher and that he is not satisfied with just seeing effects, but that he wants to know their causes too; it is obvious that he will seek in vain for all eternity the cause of this phenomenon.

If you wish to make the effort to apply these cases to all those effects whose causes we do not know; you will see, on the one hand, how much is common in nature, that there are causes whose analogy with their effects is completely veiled for us and for our current organs, or whose actions, which produce effects that are sensible for us and for our organs, have nothing in common with our modes of perceiving and sensing; and on the other, [you will see] how often man seeks blindly and occupies himself eagerly in ultimately useless investigations.

It follows necessarily that – by means of a quality that cannot be manifested to us by any of our current organs – an essence can act on another essence, such that this other essence manifests its relation to us by means of one of our organs.

Therefore, all this incomprehensibility vanishes, and it is very likely that what we call immaterial essence (because it does not manifest any relation to us by way of any of our organs) can act on what we call material essence (because it manifests its relation to us by way of our organs).

Thus, there is nothing left of this so-called absurdity of the immaterial soul's action on a material body. And it seems clear that Lucretius was a little too risky in drawing this conclusion:

> Ergo praeter inane, et corpora, tertia per se
> Nulla potest rerum in numero natura relinqui.[68]

It is not a question of only a third nature different from body or space; rather, there is an infinite probability of an infinity of others which are neither body nor space; there is an infinite probability that there are an infinity of vehicles of actions for which we have no organs. There is an infinite probability that we have a lot of organs whose action propagated from the essences by analogous vehicles has yet to reach us.

*Clarification (*j)*

The general spirit which reigns in each perihelion over all human knowledge necessarily derives from the first ideas of relation which are formed in the heads of men

when leaving barbarism behind. These ideas of relation are always those which are most useful at the time and the easiest to form after having passed an aphelion, and, therefore, the nature of these first ideas of relation depends on the nature of the state of man in each aphelion.

When the state of men in the aphelion, εἴτε γηγενεῖς ἦσαν, ἔιτ' ἐκ φθορᾶς τινος ἐσώθησαν, 'whether sprung from the earth or the survivors of some destructive cataclysm',[69] has been one of perfect ignorance, the first ideas of relation are ideas of coexistence.

A star rises or sets before or after the sun; a river overflows, the one is the cause of the other. And what is curious is that it is always the least-known object which will be the cause of the most-known object (e.g. Syrius and the Nile). When a comet appears, some kind of great event will happen on earth at the same time, and the relation between these two things is that one is the cause of the other, and a superficial contemplation of two quite disparate things necessarily gives rise to the taste for and the spirit of the marvellous.

When the state of man in the aphelion had been slavery, overpopulation and migrations, [then] the first ideas of relation pertain to current utility, to the relations of men to each other, to the formation, the establishment and defence of small societies, out of which naturally derives heroism, patriotism and the spirit of moral sense.

When the state of man in the aphelion has been superstitious idleness, the convents and monks soon gave birth to a pusillanimous and symmetrical spirit, out of which ultimately derived the geometric and exact spirit.

*Clarification (*k)*

Note. Let us suppose two individuals *A* and *B*. Suppose that in the present state of their coexistence, the relation of *A* to *B* is expressed by *m*, and that in another possible state this relation would be expressed by *x*. The relation *m* will necessarily produce certain effects, and the relation *x* necessarily produces some other effects.

Now the relations *m* and *x* equally pertain to the essence of *A* and *B*, and the essence of *A* and *B* would be quite absurd if the relation *x* could take place only if the relation *m* could not take place.

He who has created *A* and *B* has put *x* just as much as *m* into their essences – that is, [as] the necessary causes of effects which result from them.

The relation of *A* and *B* with their Creator results from the immutable essence of the Creator and their [own] essence which contains *m* and *x* equally. Therefore, with respect to God, *A* and *B* are immutable, and their essence is to contain what makes *m* and what makes *x*.

But suppose *A* to be a free and active being who can choose between *m* and *x*; he makes *x* exist, but *m* pertains equally to his essence, and although, with respect to himself, he appears only under the face [of] *x* which he has made to exist, he appears under the faces of *x* and *m*, with respect to him from whom he receives his essence.

God has created essences with all their possibilities; and the being that is free, active and endowed with the moral organ, creates its own state of possibilities.

It may be remarked here that, in this way, prayer would be utterly useless to man, but I reply

1°. that, insofar as I can judge, my reasoning is correct.

2°. that God has nothing to do with men's prayers.

3°. that prayer gives to man or manifests in him a direction to be taken in the sphere of his activity which brings him closer to the Supreme Being and which is necessarily the best of all possible directions he can choose.

4°. that the relation of us to God is that of something small and determinate to the infinite – an idea that it is sufficient to be human to grasp – and that the relation of God to us is that of the infinite to something small and determinate – an idea that one needs to be God to grasp. From the first of these relations follows the usefulness of prayer, but if, from the second, there derives the possibility that it will be answered, this is a problem whose solution pertains to a revelation, and which cannot be achieved by philosophy.

Philosophical Description of the Character of the Late Mr. F. Fagel[1]

Diva – – nos ire per omnem
(Sic amor est) Heroa velis, Scyroque latentem.
– Statius.[2]

1773[3]

The great souls, which appear from time to time among men, are works of providence destined for an end that does not pertain to this world: they are seeds that sprout in eternity.

If we consider them only from this perspective, celebrating them would be of little comfort to common souls; but because it belongs to art, to education and to work to modify [these souls'] developments for the best use of society, there is wisdom in perpetuating their memory, so that emulation will strive, at least, to draw all possible advantage from art, from education and from work.

The superior geniuses who, by their work and their writings, have enlightened men find assured praise in the light they have been able to spread.

Those whose beautiful actions have been followed by great events are properly within the domain of poetry: it is [poetry] which paints events and actions in beauty and hints at their primitive source.

Those whose great actions, by an unfortunate concurrence of things, have not produced analogous effects belong to eloquence, which, by its art, in some way compensates for events.

But for those who develop too quickly, who ripen and leave the world before society has had the opportunity to sense their happy influence, it belongs to philosophy to describe them as extraordinary productions, or like those stars which shine for a few days, move away from the earth, and seem to disappear from our eyes.

It is a man of this kind whose loss the Republic of the United Provinces has just suffered.

François Fagel, born of a house which, for more than a century, has won fame by a series of excellent men of state and of war, died in The Hague at the age of 33 on the 28th of last August.

From his childhood, he promised great things, by his gentleness, his vivacity, and – what is rare at that age – by a decided taste for the true and for the beautiful. His youth was entrusted to a man of great knowledge, of great experience, whose

manners were universally respected.[4] He pursued his first studies at the University of Leiden,[5] then went to Lausanne, travelled through Switzerland, Italy, France and England; and, on his return to his homeland, he partnered his father[6] in the eminent position of Clerk to the High Lords [of the States-General].[7]

He was endowed with several qualities which are rarely found together and almost never in such a high degree of perfection; and, from this fortunate assembly, [there] naturally arose new faculties, which distinguished him among the small number of men who can be compared to him.

He had a prodigious memory. Born with a geometrical spirit, he had all his ideas clear, distinct, well determined, and a sure judgment. He possessed an admirable tact, that faculty which seems to penetrate into the essence of things and which in fact is only the effect of a quick operation of judgement, and, consequently, [he possessed] a prompt and fluent [power of] conception. He possessed that elevation of mind which never sees one thing alone, but which embraces several at the same time, along with the relations which link them – and this gives knowledge a great scope. He had a presence of mind that never wavered, and, despite appearances of distraction, he was at all times the master of fixing all his attention on what he intended. He had the rare talent of listening well and replying well. His mind, as flexible as it was broad, conformed to everything. It was very difficult to read in the features of his face what was happening in his soul, except in those moments when he came to the aid of the unfortunate. It was then that a kind of disorder became visible, caused by the double sensation of painful commiseration and the keen pleasure of doing good. At the sight of the physiognomy, the figure, the gait of a man, he divined his character, his talents, and often even his profession, with marvellous accuracy. Skilled in penetrating the secrets of others, it was impossible to wrest his own from him, even in the midst of dissipation or the pleasures of the table, which he sometimes allowed himself.

From the composition of the faculties of his mind, which were all cultivated with extreme care, resulted an infinitely rare quality, which was most characteristic of him and to which he owed, by preference, the singular happiness of pleasing everyone, without distinction of sex, age or position: he knew how to conform his mind to that of every person. He knew how to hide his talents. He diminished or augmented their brilliance at his will. He made them act separately or together, depending on the circumstances. He made them appear as bright as he desired: so much so that even the most mediocre man saw in him merely a man who was just enough his superior to give him his confidence and ask his advice, but just enough his equal to love him and to not fear or envy him.

This dominance over his own talents and over all the faculties of his mind evidently had to result in extreme skilfulness in his dealings with men, and, in handling of affairs, that admirable sagacity, which, employing only those talents that are necessary, steadily attains its goal; whereas excellent minds often fail to attain theirs by using all of their talents at the same time, or else some talents that are harmful.

Let us make here two reflections useful for education: the first [is] that what characterises, what distinguishes a man, and what presides for the most part over his actions is not one particular talent that is predominant or most cultivated; it is the

result of all of his talents together. Consequently, one should improve oneself only to cultivate that quantity of talents that could produce the best possible composite.

There are men made unhappy by cultivating talents which collide with each other or destroy each other.

There are men prejudicial to society who would have been useful members with smaller faculties.

Fagel himself confessed to his most intimate friends some prodigious talents for which he had no use.

The second reflection is that, if from so many great faculties a perfect knowledge of men and their affairs must result, they should produce, at the same time, the subtlest means which the shrewdest cunning could ever employ. Let us suppose, if possible, that so many different qualities belonged to some abject, oblique soul, whose inclinations were bad; what a man would we here depict! It follows that, when one is planning the education of some extraordinary child, it is necessary to study the relations between the talents of [the child's] mind and the calibre of its soul, in order to stifle those [talents] that its soul would abuse or would not be able to govern.

Fagel's soul was large, simple, strong, but sensitive to the appearance of weakness. The position he occupied, the difficulty of his situation in the most complex Republic that ever existed,[8] the prodigious complexity of his mind, hid [his soul] from the eyes of the public. [His soul] was believed to be good owing to the amiability of his conversation, to his generous beneficence, in short to all his social virtues. But with his friends, [his soul] appeared in its entirety, in all its grandeur; and thus free from its rich veils, its beauty was such that there was sometimes visible – in the friendship it inspired – anxieties, complaints, reproaches, jealousies and all the disorders of love.

He possessed in his soul all the simplicity, candour and bonhomie that forged the glory of our ancestors: but the turn and composition of his mind did not resemble the current spirit of his nation in any way; the most clairvoyant who knew him only from afar thought they saw something hidden in his character. But let us remark here that perfect frankness, which is only the continuous manifestation of the righteousness of the heart, is almost never found in those people of position whose vast and complicated mind is united with an extreme elevation of the soul. If the congruency of these perfections is possible, it should be sought in those who occupy positions in society that are either above or below the pursuit of envy.

Humane, with integrity, generous to profusion, he mortally hated everything that was self-interested, base and mercenary.

Up to a certain point, he got on well with all sorts of people. However, when it was a matter of acquaintanceship from which friendship could result, he showed extreme prudence; and there were no experiments which he did not conduct on his future friend to know his essence. After the test, his confidence was complete; and never was a man more forgiving of the weaknesses of his friends.

From his youth onwards, he had been endowed with the soundest ideas of religion, of Christianity and of a Christian philosophy; and these ideas, fructified by reflection and by study, gave him that repose and that internal tranquillity which characterises modest wisdom.

In principle tolerant of as much as it is permitted to be, he could not hide his sovereign disdain for that category of men who are called with derision strong minds, and who, in accordance with an inconceivable taste within this enlightened and refined century, would like to destroy what is regarded by the greatest men, those men wisest in their conduct, the men most enlightened in their thinking, the men least fallible through the depth of their spirit – that is, the only men who do honour to man and whose posterity is assured – [what these men regard] as the august cause of their existence, the sole support of their being, the only refuge in misfortune and the sacred source of all true bliss.

As far as his knowledge was concerned, he possessed almost all the modern languages and spoke several of them fluently. With regard to the Greek and Latin languages,[9] he mastered them all the more since he had a deep knowledge of the government, the character and the customs of the ancients. Among Greek authors, those whom he loved to read most were Homer, Theocritus, Aristophanes and Xenophon. Among Latin authors it was Horace, Petronius and Tacitus. Aristophanes and Tacitus have had few readers like him. No science was unfamiliar to him. His head was made to understand them all; and the elevation of his mind would have made from them that sublime whole which constitutes true science, insofar as man is capable of science. But he related everything to his favourite science, which was analogous to his position – [the science] of the origin, customs, character, laws, relations, faculties and resources of nations, which is based on perfect knowledge of man and men.

Regarding the fine arts, it appeared that nature had exempted him from all study. His tact was so fine, his taste so exquisite, and the rapidity with which he embraced a whole was so great that, in a moment, he reached a judgement which he would never take back; whereas great connoisseurs, with just as much taste, are often forced to rescind their judgements for lack of this velocity in linking together parts: they see in an object what composes it; he saw what it is.

The fire that burnt in his eyes heralded the gravity of wisdom rather than sparkling vivacity of mind. His manners were simple and easy. His physiognomy, ordinarily serious and sometimes austere, changed little in his conversations, which were natural and light, unpretentious and unconstrained, and possessed solely the dose of wit that was needed. His discussions with friends were energetic, profound and instructive because of his immense erudition.

In his affairs he was brought up under a skilled master, and he brought to it – with the facility that necessarily follows from so many qualities – the rare talent of making his faults into the object of a deep study without anger; and the least adroit weapon to use against him was to make him commit them.

There is a singularity in the House of Fagel,[10] of which we can scarcely find an example in history: it is a family wisdom which seems to be in their blood. A partisan spirit is the essence of republics, just like strong passions are the essence of a vigorous man. When it acts on good people, on [those with] pure, enlightened souls, imbued with holy love for the homeland, it produces noble emulation, it enlightens the nation as to its true interests, it conserves for it its nerve, its elasticity and its character. But when it acts on perverse men, or when its contagion ignites the stupidity of an ignorant people, it gives birth to base envy, false suspicions, and

those cruel hatreds that upset and destroy each state. The House of Fagel has never been affected by this spirit, or rather by this dangerous disease; and this man, whom the Republic will regret for a long time, not only possessed his forebears' virtue, but also possessed in himself all that was necessary to treat this disease in others and to prevent fatal crises.

After this light sketch, what will be the judgements that will be made of this writing? Philosophy – free and proud when it pronounces the truths that animate it – interferes little with such judgements. But how many men will seek in vain for this man, who was just like them, a little more amiable, a little more enlightened, a little more skilled, but in the end their equal!

He had chosen Mlle Boreel[11] for his spouse, daughter of Mr. Boreel,[12] formerly the Dutch ambassador in England. She is pregnant and responsible for the education of four sons and two daughters.[13] The eminent qualities of this mother foster every seed of excellence discernible in these children. One wishes that this writing could reach them, so that they might know early what a father they are to replace.

Such was Fagel, whose loss brought forth tears from all his fellow citizens, and [prompted] thoughtful regrets from the illustrious Head of the Republic as well as from all the sound minds of the State.

He has left his friends with the bittersweet consolation of having been distinguished by such an excellent personage.

Notes

Series Introduction

1 For more details on Hemsterhuis's life, works and reception, see the chronology that follows this Series Introduction. We would like to thank the Advisory Board in general and Louis Hoffman in particular for all their help with the translations.

2 A. W. Schlegel, *Kritische Schriften und Briefe*, ed. E. Lohner (Stuttgart: Kohlhammer, 1964), vol. 3, p. 83; J. G. Herder, *Werke*, ed. B. Suphan (Berlin: Weidmann, 1877), vol. 3, p. 127; C. M. Wieland, 'Letter to F. H. Jacobi, 11 October 1785', in F. H. Jacobi, *Briefwechsel*, ed. A. Mues *et al*. (Stuttgart: Frommann-Holzboog, 1981–2018), vol. 4, p. 204; J. G. Hamann, *Briefwechsel*, ed. A. Henkel (Frankfurt: Insel Verlag, 1955–75), vol. 7, p. 445.

3 For a selection of significant scholarship on Hemsterhuis since 1971, see K. Hammacher, *Unmittelbarkeit und Kritik bei Hemsterhuis* (Munich: Fink, 1971); M. F. Fresco *et al*. (eds), *Frans Hemsterhuis (1721–1790): Quellen, Philosophie und Rezeption* (Munich: LIT Verlag, 1990); H. Krop, 'A Dutch *Spinozismusstreit*: The New View of Spinoza at the End of the Eighteenth Century', *Lias* 32.1 (2005), pp. 185–211; P. Lacoue-Labarthe and J.-L. Nancy, 'Le dialogue des genres', *Poétique* 21 (1975), pp. 148–75; E. Matassi, *Hemsterhuis: Istanza critica e filosofia della storia* (Napoli: Guida, 1983); C. Melica (ed.), *Hemsterhuis: A European Philosopher Rediscovered* (Napoli: Vivarium, 2005); H. Moenkemeyer, *François Hemsterhuis* (Boston: Twayne, 1975); P. Pelckmans, *Hemsterhuis sans rapports* (Amsterdam: Rodopi, 1987); M. J. Petry, 'Hemsterhuis on Mathematics and Optics', in J. North and J. Roche (eds), *The Light of Nature* (Dordrecht: Springer, 1985), pp. 209–34; P. Sonderen, *Het sculpturale denken: De esthetica van Frans Hemsterhuis* (Leende: Damon, 2000); W. van Bunge, *From Bayle to the Batavian Revolution* (Leiden: Brill, 2018); J.-L. Vieillard-Baron, *Platonisme et interprétation de Platon a l'épochè modern* (Paris: Vrin, 1988); and M. Wielema, 'Frans Hemsterhuis: A Philosopher's View of the History of the Dutch Republic', *Canadian Journal of Netherlandic Studies* 14.1 (1993), pp. 55–63.

4 Specifically: F. Hemsterhuis, *Œuvres philosophiques*, ed. J. van Sluis (Leiden: Brill, 2015); F. Hemsterhuis, *Opere*, ed. and trans. C. Melica (Napoli: Vivarium, 2001); F. Hemsterhuis, *Wijsgerige werken*, ed. M. J. Petry (Leeuwarden: Damon, 2001); F. Hemsterhuis, *Œuvres inédits*, ed. J. van Sluis (Berltsum: van Sluis [Lulu print on demand], 2021); and F. Hemsterhuis, *Briefwisseling* (*Hemsterhuisiana*), 16 vols, ed. J. van Sluis (Berltsum: van Sluis [Lulu print on demand], 2010–17).

5 For Jonathan Israel, see, among other texts, *'Failed Enlightenment': Spinoza's Legacy and the Netherlands (1670–1800)* (Wassenaar: NIAS, 2007). See also D. Nassar, *The Romantic Absolute: Being and Knowing in Early German Romantic Philosophy, 1795–1804* (Chicago: University of Chicago Press, 2013); L. Weatherby, *Transplanting the Metaphysical Organ: German Romanticism between Leibniz and Marx* (New York: Fordham University Press, 2016).

6 See note 4 above.

7 E. Trunz, *Goethe und der Kreis von Münster* (Münster: Aschendorff, 1971), p. x. Throughout this edition, wherever the surname Gallitzin is used, it refers to Amalie Gallitzin (whereas her husband is designated by his full name, Dmitri Gallitzin).

8 For details, see note 4.

9 Van Bunge, *From Bayle to the Batavian Revolution*, p. 180.
10 See his comments at the end of the *Letter on Sculpture* (p. 75), as well as those on Blankenburg's German edition (*B* 3:172–3).
11 See, e.g., *B* 12: 224–5.
12 F. Schlegel, *Kritische Ausgabe*, ed. E. Behler *et al.* (Munich: Schöningh, 1958–2002), vol. 1, p. 244.

Hemsterhuis's Art and Aesthetics: Theories in the Making

1 *Neue Bibliothek der schönen Wissenschaften und der freyen Künste* 11.2 (1771), pp. 296–329. See P. Sonderen, *Het sculpturale denken: De esthetica van Frans Hemsterhuis* (Leende: Damon, 2000), p. 139.
2 Almost all later editions of the *Letter on Sculpture* have left out parts of the book's original visual components.
3 See P. Sonderen (ed.), *The Entanglement of Theory and Practices in the Arts* (Arnhem: ArtEZ Press, 2019).
4 J. Rancière, *The Politics of Aesthetics: The Distribution of the Sensible* (New York: Continuum, 2006).
5 Hemsterhuis describes the role of the sketch as a phenomenon that gives the viewer the quickest and most satisfying access to the whole that it represents (p. 64). For a detailed analysis of this account of the sketch, see Sonderen, *Het sculpturale denken*, pp. 46–9.
6 Royal Library, The Hague <https://www.kb.nl/themas/filosofie/frans-hemsterhuis/brief-over-een-antieke-steen>, accessed 10 August 2020.
7 Comte de Caylus, *Recueil d'antiquités Égyptiennes, Étrusques, Grecques et Romaines*, 7 vols (Paris, 1752–5).
8 Hemsterhuis's definition of beauty – 'that the soul always seeks the greatest possible number of ideas in the smallest possible space of time' – is well known, especially in (the history of) aesthetics. He never uses the term 'aesthetics' in any of his writings or letters and the term had seemingly not entered the Dutch language yet, as we can see in the first academic dissertation on beauty in the Netherlands, Bernardus Nieuhoff's *De sensu pulcri* (1773), in which Hemsterhuis's theory plays an important role. The Latin dissertation is partly translated into Dutch as 'Een wijsgerig proefschrift over het schoonheidsgevoel' in H. Krop and P. Sonderen (eds), *Tussen classicisme en romantiek, Esthetica in Nederland van 1770 tot 1870* (Rotterdam 1993), pp. 32–79.
9 P. Turetsky, 'Rhythm: Assemblage and Event', in I. Buchanan and M. Swiboda (eds), *Deleuze and Music* (Edinburgh: Edinburgh University Press), pp. 145–6.
10 Christiaan Huygens introduced the idea of synchronism in the material world. See for instance P. S. Spoor and G. W. Swift, 'The Huygens Entrainment Phenomenon and Thermoacoustic Engines', *Journal of the Acoustical Society of America* 108.2 (2000), pp. 588–9.
11 See M. Hauser, 'The Liver and the Moral Organ', *Scan* (2006), pp. 214–20, which compares the moral organ to the liver to enquire if both 'organs' are equally replaceable. See also Novalis's claim – 'Hemsterhuis's expectations of the moral organ are really prophetic' (in L. Pikulik, *Frühromantik: Epoche – Werke – Wirkung* [Munich: Beck, 2000], p. 41).
12 See M. Baxandall, *Shadows and Enlightenment* (New Haven: Yale University Press, 1995), pp. 17–31.
13 This is what Bellori did in his *Le vite de' Pittoro, Scultori et Architetti moderni* (Rome, 1672). And his view became normative for several art academies founded at the time and it

is worked through in the theories of (for example) Le Brun and Félibien, Du Fresnoy, Winckelmann and also Dryden and Reynolds. See E. Panofsky, *Idea: A Concept in Art Theory* (New York: Harper and Row, 1968), pp. 105–12.

14 See Sonderen, *Het sculpturale denken*, p. 30–2.

15 The comparison of two forms foreshadows the later art-historical method of morphological comparison that led to the use of two projectors in the lecture room.

16 The term 'baroque', as Hemsterhuis uses it, has nothing to do with the homonymous art-historical term 'Baroque' that was developed in the nineteenth century and which primarily refers to an art-historical period. For Hemsterhuis and all his contemporaries, the term is synonymous with the chaotic or disordered. See, for example, J. Bialostocki, *Stil und Ikonographie, Studien zur Kunstwissenschaft* (Köln: Du Mont, 1981), pp. 106–20.

17 'One of the most excellent heads and most excellent souls I have ever seen (he is the one to whom the Letters on Sculpture and on Desires are addressed ουκ ανεῦ σκῶπου, not without purpose), after unbelievable efforts and half a year of disordered brain, took the same step, and you should have seen how strangely he interpreted the last of these letters. It is a fact that those who thought they saw Spinozism in my works are not absurd but preoccupied. He quietly died a Spinozist and something worse. One of the greatest sorrows I have had is that my Letter on Man appeared a few days too late for him to read it' (*B* 7.68, Annex).

18 See Sonderen, *Het sculpturale denken*. Spinoza himself did not consider art and beauty philosophically significant. See J. C. Morrison, 'Why Spinoza Had No Aesthetics', *Journal of Aesthetics and Art Criticism* 47.4 (1989), pp. 359–65; P. C. Sonderen, 'Passion and Purity from Science to Art', in C. Melica (ed.), *Hemsterhuis: A European Philosopher Rediscovered* (Naples: Vivarium, 2005), pp. 214–16.

19 Hemsterhuis saw geometry as an extremely important science, just like Descartes, Spinoza, Leibniz and Newton before him. While the first three used geometry as a basis to explain not only nature but also God, Hemsterhuis and Newton did not. Moreover, Hemsterhuis, as we just saw, puts the emphasis on the psychological origin of geometry. Geometry is not only abstract but connects with the practice from which it originates.

20 The literature almost always presents Hemsterhuis as a follower of Winckelmann. Elsewhere I have shown that this is not the case. See Sonderen, *Het sculpturale denken*, pp. 18–20, 139–42.

21 E. Reichmann, *Die Herrschaft der Zahl. Quantitatives Denken in der deutschen Aufklärung* (Stuttgart: Metzler, 1968), pp. 48–60.

22 Hemsterhuis's manuscript of the *Letter on Sculpture* contains the phrase 'qu'elle serpente avec grâce', which in the printed version has been erroneously changed into 'qu'elle se présente avec grâce'. See Sonderen, *Het sculpturale denken*, pp. 18, 176. This not only changes the meaning but also loses the reference to the *figura serpentinata* of Giambologna.

23 An exception is Dutch choreographer Ivar Hagendoorn, who writes in his 'Emergent Patterns in Dance Improvisation and Choreography' (in *Unifying Themes in Complex Systems* 4 [2002], pp. 183–95): 'In a recent review of a mixed program by William Forsythe and the Frankfurt Ballet … a Dutch dance critic wrote that "Forsythe's dance language is crystal clear, but of such a complex virtuosity that the images and thoughts it evokes can hardly fall into place within the duration of a performance"…. This almost reads as a reformulation of Frans Hemsterhuis's and George Birkhoff's definition of beauty. The critic concluded that "Forsythe's dance language [is] too complex for [the] audience."'

24 The *Letter on Desires* played an important role in the cult of friendship at the end of the eighteenth century – see P. Kluckhohn, *Die Auffassung der Liebe in der Literatur des 18. Jahrhunderts und in der deutschen Romantik* (Tübingen: Niemeyer, 1966).
25 See K. Hammacher, *Unmittelbarkeit und Kritik bei Hemsterhuis* (Munich: Fink, 1971), p. 133.
26 On the role of sexuality (especially in his drawings), see Sonderen, *Het sculpturale denken*, pp. 55, 66, 69–72. Another approach can be found in P. Sonderen, 'Where theory and artistic practice meet: The art of oscillation (on Hemsterhuis, Novalis and now)', in P. Sonderen and M. de Langen (eds), *Theory Arts Practices* (Arnhem: ArtEZ Press, 2017), pp. 18–69
27 'Grand Homme' is Hemsterhuis's name for Franz von Fürstenberg (1729–1810), a German politician, statesman and educational reformer in Münster. Hemsterhuis's advice to start an art academy was in vain, for, as far as I know, the current art academy was established only in 1972.

Man in General and *Fagel* in Particular

1 R. Popkin, *The History of Scepticism: From Savonarola to Bayle* (Oxford: Oxford University Press, 2003), pp. 3, 43, 112.
2 P. Camper, *'Oratio de mundo optimo' en 'Prolegomena in philosophiam'*, ed. J. van Sluis (Ljouwert: Fryske Akademy, 1988).
3 M. Foucault, *The Order of Things: An Archaeology of the Human Sciences* (London: Routledge, 2002), p. 347.
4 J. van Sluis, *Kringen rondom François Hemsterhuis: vrienden, verwanten en passanten* (Berltsum: van Sluis [Lulu print on demand], 2018), pp. 23–4.
5 *Journal encyclopédique*, 15 September 1772, pp. 359–71.
6 Royal Library, The Hague: 120 D 11.
7 See H. J. Lope, 'Diderot et François Hemsterhuis', in *Présence de Diderot* (Frankfurt am Main: Peter Lang, 1990), p. 156.
8 J. van Sluis, 'Een onbekende druk van Hemsterhuis', *Geschiedenis van de wijsbegeerte in Nederland. Documentatieblad van de Werkgroep Sassen* 14 (2003), pp. 121–7.
9 Royal Library, The Hague: 123 E 1.
10 University Library, Leiden: BPL 2048.
11 O. Schutte, *Repertorium der buitenlandse vertegenwoordigers, residerende in Nederland 1584–1810* ('s-Gravenhage: Nijhoff, 1983), pp. 691–2.
12 Franklin obtained copies of the *Letter on Sculpture*, *Letter on Desires*, *Letter on Man*, *Fagel*, *Sophylus* and *Aristaeus*. See E. Wolf and K. J. Hayes, *The Library of Benjamin Franklin* (Philadelphia: American Philosophical Society, 2006), pp. 406–7.
13 National Archives, The Hague: Fagel Family Files, no. 170.
14 *Journal encyclopédique*, 15 September 1772, pp. 360–1.
15 After completing this introduction, I found a table of contents written by Hemsterhuis himself: University and State Library Münster, Gallitzin Nachlass, Kapsel 37/3. It will be made available along with other unpublished texts on my website <https://www.rug.nl/library/heritage/hemsterhuis> (accessed August 2021).
16 F. Hemsterhuis, *Oeuvres philosophiques*, 3 vols, ed. L. S. P. Meyboom (Leuwarde: Eekhoff, 1846–50), vol. 1, pp. 74–7; F. Hemsterhuis, *Lettre sur l'homme et ses rapports, avec le commentaire inédit de Diderot*, ed. Georges May (New Haven: Yale University Press, 1964), pp. 35–6.
17 We have added a line space in our translation to mark these transitions.

18 This merging probably proceeded by way of the intermediate stage of an unpublished *Traité sur l'immatériel* – see L. Brummel, 'Eenig nieuws omtrent Frans Hemsterhuis', *Het boek. Tweede reeks van het tijdschrift voor boek- en bibliotheekwezen* 18 (1929), pp. 313–14.
19 H. Moenkemeyer, *François Hemsterhuis* (Boston: Twayne, 1975), p. 59.
20 See note 16 above.
21 May, *Lettre*, p. 513.
22 May, *Lettre*, pp. 16, 13.
23 May, Lettre, pp. 27–33.
24 For Hemsterhuis's comments on Diderot's style, see *B* 6.37.
25 May, *Lettre*, pp. 14a, 33, 36a.
26 May, *Lettre*, pp. 120, 109a.
27 May, *Lettre*, p. 130.
28 Possibly Michael Hissmann (1752–84), although I cannot find a similar book title in his bibliography. He had, though, planned to translate Hemsterhuis – see *B* 1.208.
29 *Frankfurter gelehrte Anzeigen* XCI, 13 November 1772, pp. 721–6.
30 See G. J. Scheurwater, 'Moral Knowledge and the Political Significance of Hemsterhuis's *Lettre sur l'homme*', in C. Melica (ed.), *Hemsterhuis: A European Philosopher Rediscovered* (Naples: Vivarium, 2005), p. 259.
31 Quoted from the 'French Literature' entry to the *Encyclopædia Britannica*.
32 See J. van Sluis, 'Mutual Affairs: Petrus Camper as Seen by his Friend François Hemsterhuis', in K. van Berkel and B. Ramakers (eds), *Petrus Camper in Context: Science, the Arts, and Society in the Eighteenth Century Dutch Republic* (Hilversum: Verloren, 2015), pp. 91–109.

Hemsterhuis as Provocation: The German Reception of his Early Writings

1 G. de Staël, *De l'Allemagne* (Paris: Nicolle, 1814), p. 74.
2 Leif Weatherby argues that the Romantic discourse of organology – which draws extensively on Hemsterhuis – culminates in a functional and constructivist speculative metaphysics. See L. Weatherby, *Transplanting the Metaphysical Organ: German Romanticism between Leibniz and Marx* (New York: Fordham University Press, 2016).
3 See A. Bonchino, *Materie als geronnener Geist: Studien zu Franz von Baader in den philosophischen Konstellationen seiner Zeit* (Paderborn: Ferdinand Schöningh, 2014).
4 F. von Baader, *Ueber das pythagoräische Quadrat in der Natur oder die vier Weltgegenden* (1798).
5 De Staël, *De l'Allemagne*, p. 74.
6 The precise relation of Lessing to Spinoza is still a point of contention in the scholarship. According to Toshimasa Yasukata, for example, Lessing's Spinozism culminated in a 'pantaentheism', one in which the 'one and all' was commensurate with the ego (I am one and all) (*Lessing's Philosophy of Religion and the German Enlightenment* [Oxford: Oxford University Press, 2002], p. 139). Others, such as Willi Goetschel, see in Lessing's Spinozism (above all in *The Education of Mankind*) a wholesale challenge to theological thinking (*Spinoza's Modernity: Mendelssohn, Lessing, and Heine* [Madison: University of Wisconsin Press, 2004], p. 229).
7 C. M. Wieland, 'Wieland an Jacobi. Weimar, den 11. October 1785', *Aus F. H. Jacobi's Nachlaß* (Leipzig: Wilhelm Engelmann, 1869), vol. 1, p. 65.
8 See L. Daston and K. Park, *Wonders and the Order of Nature, 1150–1750* (Cambridge, MA: MIT Press, 1990), pp. 255–301.
9 J. W. Goethe, 'Hemsterhuis-Gallizinische Gemmen-Sammlung', in *Goethes Werke* (Weimar: Hermann Böhlaus Nachfolger, 1900), 2.49: 101.

10 J. W. Goethe, 'Notice sur le Cabinet des Médailles et des Pierres gravées de Sa Majesté le Roi des Pays-Bas; par J.C. de Jonge, Directeur, A la Haye 1823', in *Goethes Werke* (Weimar: Hermann Böhlaus Nachfolger, 1900), 2.49: 109.
11 Goethe, *Sämtliche Werke*, 1.16: 548.
12 Goethe, 'Hemsterhuis-Gallizinische Gemmensammlung', p. 321.
13 C. Garve, 'Lettre sur la Sculpture, à Monsieur Theod. de Smeth, p. Mr. Hemsterhuis le fils. 4. [= quarto] de pag. 31', *Neue Bibliothek der schönen Wissenschaften und der freyen Künste* 11.2 (1771), p. 296.
14 Garve, 'Lettre sur la Sculpture', p. 323.
15 Garve, 'Lettre sur la Sculpture', p. 323.
16 J. H. Merck, 'An Sophie La Roche; Darmstadt, 31. Dezember 1771', in *Briefwechsel*, ed. U. Leuschner *et al.* (Göttingen: Wallstein, 2007), vol. 1, p. 295.
17 M. Mendelssohn, 'Lettre sur la sculpture. A Mons. Théodore de Smeth. Amsterdam 1769 (März 1776)', in *Gesammelte Schriften* (Leipzig: Brockhaus, 1844), vol. 4.1, p. 120.
18 J. Gaiger, 'The Temporality of Sculptural Viewing in Hemsterhuis's *Lettre sur la sculpture*', *Sculpture Journal* 27.2 (2018), pp. 241–6.
19 M. Mendelssohn, 'Objective und subjective Unterhaltungsfähigkeit (Juni 1776)', in *Gesammelte Schriften*, vol. 4.1, p. 120.
20 See F. Cirulli, *The Age of Figurative Theo-Humanism: The Beauty of God and Man in German Aesthetics of Painting and Sculpture (1754–1828)* (Dordrecht: Springer, 2016), pp. 64–6.
21 F. Schlegel, *Kritische Ausgabe*, ed. E. Behler *et al.* (Munich: Schöningh, 1958–), vol. 2, p. 187.
22 See C. G. Herrmann, *Kant und Hemsterhuis in Rücksicht ihrer Definitionen der Schönheit* (Erfurt: J. C. Görling, 1791).
23 'Beauty, says Hemsterhuis, is that which grants the greatest number of ideas in the smallest amount of time; an explanation that borders on the older "sensate unity in diversity" and on the later "free play of the imagination".' Jean Paul, *Vorschule der Ästhetik*, ed. N. Miller and W. Henckmann (Hamburg: Meiner, 1990), p. 42.
24 Jean Paul, *Vorschule der Ästhetik*, p. 43.
25 Jean Paul, *Vorschule der Ästhetik*, p. 30.
26 Jean Paul, *Vorschule der Ästhetik*, p. 32.
27 Goethe, *Sämtliche Werke*, 1.16: 546.
28 A. W. Schlegel, *Sämmtliche Werke*, ed. E. Böcking (Leipzig: Weidmannsche Buchhandlung, 1846), vol. 5, p. 10.
29 See C. MacLeod, 'Sculptural Blockages: Wilhelm Heinse's *Ardinghello*, Clemens Brentano's G*odwi*, and the Early Romantic Novel', *Seminar* 49.2 (2013), pp. 232–47; as well as her monograph *Fugitive Objects: Sculpture and Literature in the German Nineteenth Century* (Evanston: Northwestern University Press, 2013).
30 F. W. J. Schelling, *The Philosophy of Art*, trans. D. W. Stott (Minneapolis: University of Minnesota Press, 1989), p. 194. For more on Hemsterhuis as a possible source for Schelling's thoughts on sculpture, see X. Tilliette, *Schelling: Une philosophie en devenir* (Paris: Vrin, 1970), vol. 1, pp. 439, 455.
31 Schelling, *The Philosophy of Art*, p. 193.
32 See Weatherby, *Transplanting the Metaphysical Organ*, p. 215.
33 See D. Henrich, *Hegel im Kontext* (Frankfurt am Main: Suhrkamp, 1971), pp. 9–40.
34 See M. Franz, *Tübinger Platonismus: Die gemeinsamen philosophischen Anfangsgründe von Hölderlin, Schelling und Hegel* (Tübingen: Francke, 2012). Franz considers an alternative source for Hölderlin's 'eccentric path' in the Platonic theological and philosophical doctrines discussed in the Tübinger Stift (the Protestant seminary attended by Hegel, Schelling and Hölderlin); while it is difficult to pinpoint precise sources for specific

thoughts, the consonances and dissonances of Platonic thought and Kantian transcendental philosophy make Hemsterhuis, the 'Batavian Plato', a relevant figure in this intellectual milieu.

35 For the ramifications of ideologies of polar opposition for gender differentiation in nature-philosophy and science around 1800 – and how the loosening of such structures of polarity led to more capacious and experimental thinking about gender – see S. Engelstein, 'Sexual Division and the New Mythology: Goethe and Schelling', *History and Philosophy of the Life Sciences* 42.39 (2000), pp. 1–24; and J. Holland, 'Reproduction without Polarity in the Work of Johann Wilhelm Ritter', *History and Philosophy of the Life Sciences* 42.52 (2020).

36 J. G. Herder, *Werke*, ed. J. Brummack and M. Bollacher (Frankfurt am Main: Deutscher Klassiker, 1994), vol. 4, p. 419.

37 See C. Melica, 'Longing for Unity: Hemsterhuis and Hegel', *Hegel-Bulletin* 28.1–2 (2007), pp. 143–63.

38 See Weatherby, *Transplanting the Metaphysical Organ*, pp. 248–50.

39 Novalis, *Schriften*, ed. R. Samuel, H.-J. Mähl and G. Schulz *et al.* (Stuttgart: Kohlhammer, 1960–2006), 2.361.

40 'Through the perpetual possibility of the expansion of the object – the total unification also remains always in the future' (Novalis, *Schriften*, 2.361).

41 Novalis, *Schriften*, 2.361.

42 Novalis, *Schriften*, 2.362.

43 Novalis, *Schriften*, 2.362.

44 Schlegel, *Kritische Ausgabe*, vol. 18, p. 6.

45 Schlegel, *Kritische Ausgabe*, vol. 18, p. 286.

46 G. Stenger, 'Introduction', in D. Diderot, *Réfutations, idées VI* (Paris: Hermann, 2004), p. 340.

47 Stenger, 'Introduction', p. 264.

48 Stenger, 'Introduction', p. 270.

49 Novalis, *Schriften*, 2.362.

50 See D. Nassar, *The Romantic Absolute: Being and Knowing in Early German Romantic Philosophy 1795–1804* (Chicago: University of Chicago Press, 2013), pp. 39–47.

51 Novalis, *Schriften*, 2.364.

52 Novalis, *Schriften*, 2.368.

53 Y. Hui, *The Question Concerning Technology in China: An Essay in Cosmotechnics* (Falmouth: Urbanomic, 2016), p. 19.

54 Herder, *Werke*, vol. 4, pp. 604–8.

55 Herder, *Werke*, vol. 4, p. 604.

56 R. Langston, *Dark Matter: A Guide to Alexander Kluge and Oskar Negt* (New York: Verso, 2020), p. 41.

Letter on an Antique Gemstone

1 No publisher or bibliographical information is given within the publication. It is likely to have been printed by de Smeth himself as a literal reproduction of Hemsterhuis's handwritten letter (see note 2 below) and distributed to a few direct acquaintances interested in antiquities. As a result, very few copies of this work were ever in circulation – already in 1775 Hemsterhuis dubs it 'rarer' than his other works (*B* 1.5) and by 1784 he no longer has any copies to distribute, but suggests that de Smeth's son might still possess a copy (*B* 12.136). Neither Blankenburg in 1782 nor Jansen in 1792 include it in their

editions and Meyboom wrongly supposes it was published posthumously. The following translation is based on the text established in *OP*, pp. 84–7.

2 Theodorus de Smeth (1710–72) was originally a clothing merchant who founded a banking company with his brother in 1732 ('Raymond & Theodoor de Smeth & Co.') which gave him access to dignitaries throughout Europe. From 1742, he served on the Council of Amsterdam. In 1760, Hemsterhuis acquired a precious gemstone with de Smeth's funds and, in return, wrote the *Letter on an Antique Gemstone* in January 1762. This short antiquarian work is mainly of philosophical interest as the point of departure for a series of reflections that Hemsterhuis addresses to de Smeth over the ensuing decade that build from this innocuous starting point into an entire aesthetic and metaphysical edifice. Significantly, according to Hemsterhuis in 1786 (*B* 7.68), part of the motivation for this increasingly theoretical response to de Smeth was the latter's flirtation with crypto-Spinozism and his attempt to interpret Hemsterhuis's own writings as Spinozist.

3 An engraved violet piece of quartz, reproduced at the beginning of the text above.

4 All names of Greek colonies in Sicily.

5 Anne-Claude-Philippe, Comte de Caylus (1692–1765), French antiquarian and author of the seven-volume *Recueil d'antiquités Egyptiennes, Étrusques, Grecques, Romaines et Gauloises* (Paris, 1752–5). As a result of this letter, Hemsterhuis obtained, in his own words, 'the affection and friendship of the Comte de Caylus' (*B* 1.5).

6 Caylus, *Recueil d'antiquités égyptiennes*, vol. 2, pp. 122–4, plate XLII.

7 The famous Athenian victory over the Persians in 480 BC.

8 Hemsterhuis seems to have held an unofficial position in helping with the curation of and acquisitions for the Stadtholder's collection of antiquities at this time. Seleucus II ruled the Seleucid Empire (a remnant of Alexander's Macedonian Empire in Syria) from 246 to 225 BC. The Parthian Empire, with its political centre in Iran, was ruled at the time by Arsaces I. Attalus I (referred to in the footnote) was King of Pergamon (in Turkey) at the period. The scholarly references in the footnote are to Nicolaus Franciscus Haym, *Thesaurus britannicus, seu museum numarium, quo continentur numi graeci et latini …* (Vindobanae, 1763), pp. 41–2, tabula III; J. Foy-Vaillant, *Seleucidarum imperium, sive historia regum Syriae, ad fidem numismatum accomodata* (Hagae-Comitum, 1732), pp. 29–36; Erasmus Froelich, *Annales compediarii regum, et rerum Syriae, numis veteribus illustrati* (Viennae, 1744), 'Prolegomena', pp. 64–8, 'Annales', pp. 29–31, tabula V.

9 All kings and tyrants of Syracuse: Agathocles, 361–289 BC; Hieron I, d. 467 BC; Dionysius I, c. 432–367 BC; Gelon, d. 478 BC.

10 The Battle of Himera (480 BC), in which Gelon's Syracusan army defeated the Carthaginians as part of the Sicilian Wars.

11 King Theron of Agrigentum (or Acragas, another Sicilian city-state) (d. 473 BC).

12 Hemsterhuis here references Diodorus Siculus, *Bibliotheca historica*, XI.26; Timaeus (c. 345–250 BC) was a Greek historian whose work is no longer extant; the fragment to which Hemsterhuis is referring is found in A. B. Drachmann (ed.), *Scholia vetera in Pindari carmina*, 'Scholia in Olympionicarum carmen II' (Lipsiae, 1903), vol. 3, p. 58.

13 Hesychius Alexandrinus, *Lexicon*, I.927; Julius Pollux, *Onomasticon*, IX.85.

14 Herodotus's *Histories* are the second main source for the Battle of Himera, after Diodorus Siculus's *Bibliotheca historica*.

15 Philistis, wife of Hieron II, King of Syracuse (c. 308–215 BC) – numerous coins survive from the era bearing her name and title (Queen).

16 At the centre of the Cyclades archipelago in the Aegean Sea, birthplace of Apollo and Artemis.

Letter on Sculpture

1 On Theodorus de Smeth, see note 2 to *Letter on an Antique Gemstone*.
2 Marc-Michel Rey was the publisher of numerous important and notorious eighteenth-century French texts, from Jean-Jacques Rousseau's *Discourse on the Origins of Inequality among Men* to d'Holbach's *System of Nature*, as well as translations of Plato and Newton.
3 The *Letter on Sculpture* was published four years after it was first penned as a letter to de Smeth (November 1765) and, unlike the *Letter on an Antique Gemstone*, seems to have been edited slightly from the original handwritten version by way of modernised orthography and so on. It is the first of Hemsterhuis's philosophical publications and remained central to his philosophical vision: as late as 1780, he speaks of it as 'in some way the key to the other [writings]' (*B* 3.45), although he is also clear that it cannot be understood in isolation from the *Letter on Desires*, published a year later. This translation is based on the text established in *OP*, pp. 88–149. The *Letter on Sculpture* is also the only one of Hemsterhuis's writings to have been previously translated into English, by Peter Dent, in *Sculpture Journal* 27.2 (2018), pp. 253–75, and we have benefited from Dent's translation on a number of occasions.
4 That is, de Smeth.
5 This brief account of the physiology and psychology of vision is born out of Hemsterhuis's research on optics and is elaborated further in his *Letter on Optics* sent to Gallitzin in 1789.
6 Words or groups of words repeated across the fourteen lines (not a typical feature of classic Petrarchan sonnets).
7 Cicero's *Pro Q. Ligario oratio* delivered in Ligarius's defence in front of Julius Caesar. Plutarch writes of the occasion, 'When Cicero had begun to speak and was moving his hearers beyond measure … Caesar's face often changed colour and it was manifest that all the emotions of his soul were stirred; and at last, when the orator touched upon the struggles at Pharsalus, he was so greatly affected that his body shook.' Plutarch, *Parallel Lives*, trans. B. Perrin (London: Loeb, 1919), p. 183.
8 City-states in Cyprus and a Greek colony of Turkey, respectively.
9 In his *Advice to Artists*, da Vinci writes: 'I cannot forbear to mention among these precepts a new device for study.… And this is, when you look at a wall spotted with stains, or with a mixture of stones, if you have to devise some scene, you may discover a resemblance to various landscapes, beautified with mountains, rivers, rocks, trees, plains, wide valleys and hills in varied arrangement; or again you may see battles and figures in action; or strange faces and costumes, and an endless variety of objects, which you can then reduce to complete and well drawn forms.' *The Notebooks of Leonardo da Vinci*, ed. I. A. Richter (Oxford: Oxford University Press, 1966), vol. 1, p. 508.
10 Virgil, *Aenied*, book 1, line 135, in which Neptune breaks off mid-sentence a speech berating the winds (a speech that finishes with the words, 'whom I… [*quos ego…*]'). This is the paradigmatic example of aposiopesis, a rhetorical figure that involves deliberately breaking off a sentence and leaving it unfinished.
11 Two of the most famous sculptures based on classical Greek models rediscovered during the Renaissance.
12 The mythological figure chained to a rock by her parents as a sacrifice to appease the sea monster Cetus.
13 A sculpture that the Florentine Republic commissioned from Michelangelo, but he never completed. Hemsterhuis is presumably thinking of Bandinelli's *Hercules and Cacus* (1534), which stands at the entrance to the Palazzo Vecchio, where Michelangelo's sculpture was originally intended. Hemsterhuis owned a plaster version of this sculpture.

14 Giambologna (1529–1608), the Italian-based Flemish sculptor, whose *The Rape of the Sabine Women* (1582) stands in the Piazza della Signoria in Florence.
15 The fourth-century BC Greek statue by Lysippus, a copy of which, signed by Glycon, belonged to Cardinal Alessandro Farnese.
16 The famous marble sculpture from the first century BC, rediscovered in 1506 and added to the Vatican collection, depicting a serpent attacking the Trojan priest Laocoön and his sons. It should be noted that Hemsterhuis's *Letter on Sculpture* was written before Lessing's *Laocoön* appeared in 1766 but was published afterwards.
17 That is, a statute of Mars in de Smeth's own private collection.
18 The French *expérience* can be rendered as either 'experience' or 'experiment' – and the experimental nature of Hemsterhuis's method needs to be kept in mind here.
19 In the *Letter on Desires*.
20 A key conclusion for the continuation in the *Letter on Desires*.
21 That is, 'in the round', or expressed in three dimensions.
22 Pliny the Elder tells this story of the origin of painting: 'Butades, a potter of Sicyon, was the first who invented, at Corinth, the art of modelling portraits in the earth which he used in his trade. It was through his daughter that he made the discovery; who, being deeply in love with a young man about to depart on a long journey, traced the profile of his face, as thrown upon the wall by the light of the lamp.' Pliny the Elder, *Natural History*, trans. H. Rackham (London: Loeb, 1938), book 35, ch. 43, p. 412. The allegory was popular in the eighteenth century, being mentioned by Fontenelle and in the *Encyclopédie* and often represented in paintings from 1770 onwards.
23 A town in the northern Peloponnese.
24 Plato, *Euthyphro*, 11b–c: 'Your statements, Euthyphro, are like works of my ancestor Daedalus…. Words run away and won't stay where they are put.'
25 The two great classical Athenian sculptors.
26 Dent (see note 3) opts for 'experiences'.
27 A collection that Hemsterhuis at some time seems to have helped curate in an unofficial capacity.
28 On Caylus, see note 5 to *Letter on an Antique Gemstone* (p. 148).
29 Joost van den Vondel (1587–1679), Dutch poet who wrote the tragedy *Lucifer* at a similar period to John Milton's *Paradise Lost* (1667).
30 Hemsterhuis will later put this precise claim into question in the opening conversation to his dialogue *Simon* (*EE* 2.108).
31 That is, to modelling – as a distinct form of artistic practice from the casting of sculpture.
32 'Unity or simplicity' bears some resemblance to Winckelmann's famous formula 'simplicity and sedate grandeur' (*edle Einfalt*), as does 'serenity and majesty' a few lines below.
33 The story of Tereus's rape of Philomela is told in Ovid, *Metamorphoses*, book 6, lines 427–647.
34 The largest antique sculpture to have been preserved, at four metres high. It is attributed to Apollonius of Tralles and his brother Tauriscus. After its discovery in the sixteenth century, it formed part of the Farnese collection. It depicts the twins Amphion and Zetheus affixing Dirce to the horns of a bull.
35 On the Laocoön, see note 16 above.
36 Johann Lorenz Natter (1705–63), German medallist.
37 Carlo Costanzi (1705–81), Italian engraver of stones.
38 Pierre-Jean Mariette (1694–1774), author of a 1750 treatise on engraved gemstones.
39 Homer, *Iliad*, book 21, lines 388–9, and book 20, lines 61–5: '… and round about great heaven and Olympus pealed as with a trumpet. […] And seized with fear in the world below was Aidoneus, lord of the shades, and in fear he leapt from his throne and

cried aloud lest above him the earth be split open by Poseidon, the shaker of earth, and his house be made plain to view for mortals and immortals – the dread and dank house which even the gods loath.' Homer, *Iliad*, trans. A. T. Murray, revised W. F. Wyatt (London: Loeb, 1999), pp. 432–3, 370–1.

40 Rosalba Carriera (1675–1757), Italian miniaturist.

41 Lucan, *Bellum civile, sive Pharsalia*, book 1, lines 126–8: 'Which had the fairer pretext for warfare, we may not know: each has high authority to support him; for, if the victor had the gods on his side, the vanquished had Cato.' Lucan, *The Civil War*, trans. J. D. Duff (London: Loeb, 1928), pp. 12–13.

42 Georges de Brébeuf (1618–61), translator of Lucan, *La Pharsale de Lucain, ou les guerres civiles de Cesar et de Pompée, en vers françois* (first published 1659). The French reads, 'Les Dieux servent Cesar, et Caton suit Pompée'.

43 Lucan, *The Civil War*, book 3, lines 422–3. The original Latin reads 'pavet ipse sacerdos / Accessus dominumque timet deprendere luci'.

44 Lucan, *Bellum civile*, book 3, lines 437–9. Duff's translation reads: 'Believe that I am guilty of sacrilege. Then all the men obeyed his bidding; they were not easy in their minds, nor had their fears been removed; but they had weighed Caesar's wrath against the wrath of heaven' (pp. 146–7).

45 Gaius Calpurnius Piso and Titus Annius Milo, Roman consuls of the first century BC.

46 Euripides, *Hecuba*, line 488.

47 Euripides, *Hecuba*, lines 488–91: 'That you watch over men? Or that you have won the false reputation for doing so, false, supposing that the race of gods exist, while chance in fact governs all mortal affairs?' Euripides, *Hecuba*, trans. D. Kovacs (London: Loeb, 1995), pp. 442–3.

Letter on Desires

1 A manuscript variant of the title gives it as *Second Letter on Desires*. On de Smeth, see note 2 to *Letter on an Antique Gemstone*. This is the third and final epistle to de Smeth, in which Hemsterhuis's attempts to convert him from crypto-Spinozism become increasingly clear, particularly in the additional remarks.

2 The attribution of the place of publication ('Paris') is probably fictitious, although there is no reason to doubt the date. The publisher is not known. This translation follows the text established in *OP*, pp. 150–79.

3 Manilius, *Astronomica*, book 2, line 59: 'In a ship of my own I sweep the seas.' Trans. G. P. Goold (London: Loeb, 1997), pp. 86–7. The lines surrounding this extract shed light on Hemsterhuis's motivation for choosing the epigraph: 'Mine own theme shall I sing, my words shall I owe to none amongst bards, and there shall emerge no stolen thing, but work of my own contriving; in a lone car I soar to the heavens, in a ship of my own I sweep the seas. For I shall sing of God, silent-minded monarch of nature, who, permeating sky and land and sea, controls with uniform compact the mighty structure; how the entire universe is alive in the mutual concord of its elements and is driven by the pulse of reason' (lines 57–64). Some of these additional lines are included in a manuscript version of the *Letter* (see *OP*, p. 38).

4 See *Letter on Sculpture*, p. 67.

5 See *Letter on Sculpture*, p. 63.

6 See *Letter on Sculpture*, p. 66.

7 'Every animal is sad after sex'. In this precise form the quotation is apocryphal, but often ascribed to Galen. Its approximate source is Pseudo-Aristotle's *Problemata* (xxx.1, 955a22–3).

8 Aristotle, *Politics*, I.1, 1252b26–7: 'As men imagine the gods in human form, so also they suppose their manner of life to be like their own.' Trans. H. Rackham (London: Loeb, 1944), pp. 8–9.
9 Lucretius, *De rerum natura*, IV, line 1194: 'and holds his lips in a long kiss, moistening them with her own'. Trans. W. H. D. Rouse and M. Ferguson Smith (London: Loeb, 1992), pp. 368–9.
10 See Hemsterhuis's note to the previous sentence (and the accompanying translators' note).
11 Dionysius II of Syracuse (c. 397–343 BC), whom Plato attempted to tutor to curb his dissolute governance. Hemsterhuis's remark is based on Plutarch's 'Life of Timoleon': 'Plato did not live to see Dionysius when he was in Corinth, but he was already dead; Diogenes of Sinope, however, on meeting him for the first time, said: "How little thou deservest, Dionysius, thus to live! … I am indignant that such a slave as thou, and one so worthy to have grown old and died in the tyrant's estate, just as thy father did, should be living here with us in mirth and luxury".' Plutarch, *Parallel Lives*, pp. 297–9.
12 Plato, *Symposium*, 192e10–193a1: 'The craving and pursuit of that entirety is called Love'. Trans. W. R. M. Lamb (London: Loeb, 1925), pp. 144–5.
13 Francis Bacon, 'Of Love': 'There is in man's nature a secret inclination and motion towards love of others, which if it be not spent upon some one or a few, doth naturally spread itself towards many'. Francis Bacon, *The Major Works*, ed. B. Vickers (Oxford: Oxford University Press, 1996), p. 359.
14 See *Letter on Sculpture*, p. 67, and, for a first iteration of the 'direct' demonstration, *Letter on Man and his Relations*, pp. 94–5.
15 Hemsterhuis will explore this idea in more detail (and more critically) in *Aristaeus* (*EE* 2.83).
16 See, for example, Plato's chariot allegory in *Phaedrus*, 246a–8b, as well as *Timaeus* 70d–e and *Republic* 437b–40a.
17 In Pliny the Elder, *Natural History*, books 34 and 36.
18 Julian, *Letter to Iamblichus*, 405c–d: 'For I have heard that many men have fallen in love with beautiful statues and far from injuring the art of the craftsmen they have by their passions for them imparted to the workmanship the added delight in what lives and breathes.' Trans. W. C. Wright (London: Loeb, 1923), pp. 262–3.
19 Xenophon, *Symposium*, book 8.
20 That is, 'Hemsterhuis le Fils'.
21 Pygmalion, the mythical Greek sculptor, brought Galatea to life by embracing her after his supplications to Aphrodite at her temple were granted.
22 Ovid, *Metamorphoses*, book 10, lines 291–4: '… and [he] again pressed with his lips real lips at last. The maiden felt the kisses, blushed and, lifting her timid eyes up to the light, she saw the sky and her lover at the same time.' Trans. F. J. Miller, revised by G. P. Goold (London: Loeb, 1984), pp. 84–5.
23 A mathematical image of two lines: a conic curve and its tangential line that continually draws closer to it but never touches it.
24 Hemsterhuis never devotes a single work to these issues, but does return to them briefly in the *Letter on Man and his Relations* (p. 100) and, in a more sustained manner, in *Aristaeus* (*EE* 2.83).

Letter on Man and his Relations

1 On our translation of the title, see the Series Introduction at the beginning of this volume. The 2,300 uninterrupted lines of prose can be difficult to navigate – see van Sluis's introduction for a structural breakdown of the contents.
2 Lucretius, *De rerum natura*, book 1, lines 926–7: 'I traverse pathless tracts of the Pierides never yet trodden by any foot; I love to approach virgin springs.' Trans. Rouse and Ferguson Smith, pp. 76–7.
3 *Letter on Man* was published in mid- to late 1772 and it is likely – as with the *Letter on Desires* – that the attribution to Paris was fictitious.
4 These are the opening words to Johannes Kepler's *Dioptrice* (1611): 'The little book I present to the public is not one that is easy to understand and requires not only genius in the reader, but also extreme attention coupled with an ardent desire to know the origins of things' (our translation).
5 'Experiences' is also a possible translation.
6 The published letter gives no clue as to the addressee. However, it was widely known to be François Fagel (1740–73) (see van Sluis's introduction for more details), and one of the manuscripts has an inserted inscription, 'To Mr François Fagel, clerk to the High Lords of the States General of the United Provinces'.
7 The spaced breaks in the text are our insertion following the structure suggested in van Sluis's introduction above.
8 That is, organs are anything that mediate between the external object and the mind – physical as well as physiological intermediaries. On occasion, Hemsterhuis also calls the faculties of the mind (e.g. imagination) 'organs' too.
9 The text turns to the human as a social being on p. 112.
10 On veillety, see the Series Introduction above. In short, 'veillety', for Hemsterhuis, names the indistinct and undirected power of intention that pertains to the essence of being human (he later equates it with 'spontaneity' and with 'the faculty of willpower'), whereas 'acts of will' are particular, directed effects of this power (i.e. specific intentions).
11 In line with much eighteenth-century fibre theory, Hemsterhuis terms as 'fibre' all physiological connective tissue mediating between mind and world.
12 Cicero, *De officiis*, 1.4, 11: 'But the most marked difference between man and beast is this: the beast, just as far as it is moved by the senses and with very little perception of past or future, adapts itself to that alone which is present at the moment.' Cicero, *On Duties*, trans. W. Miller (London: Loeb, 1913), pp. 12–13.
13 Alexander the Great (356–323 BC).
14 Philemon (c. 362–262 BC), Athenian playwright, whose work has survived solely in fragments.
15 'For what reason did Prometheus, who is said to have shaped us and all other animals, bestow each beast with one moral nature in accordance with its species?' H. Grotius and J. Clericus (eds), *Menandri et Philomonis reliquiae* (Amstelodami, 1712), p. 340. (English translation of this passage courtesy of Dr Ben Schomaker.)
16 The syllogistic deductions that follow build towards the direct demonstration of the eternity of the soul that Hemsterhuis anticipated in the *Letter on Desires*, p. 81.
17 The particular subjunctive form employed here is unlike anything found in Hemsterhuis's correspondence or other writings (apart from three more occasions in the *Letter on Man* and a few more in *Sophylus*), which suggests perhaps the role of an editor in preparing this text for publication.
18 Whatever distinctive uses 'attraction' goes on to have in Hemsterhuis's philosophy, this definition is roughly in line with the Newtonian conception of gravitational attraction

according to the inverse square law – that is, as directly proportional to the product of the bodies' masses and inversely proportional to the square of the distance separating them.

19 Again, whatever distinctive uses 'inertia' goes on to have in Hemsterhuis's philosophy, this definition is roughly in line with the Newtonian procedure of working out the moment of inertia by summing mr^2 for every particle in a body, where r is the distance between the point-mass and either a given axis of the body or the pivot point of a moving body.

20 Or 'experiments'.

21 Translated by A.L. Peck (London: Loeb, 1965), pp. 2–3. The subsequent couple of dense paragraphs are Hemsterhuis's rather idiosyncratic contribution to raging debates in the nascent life sciences between epigeneticists and preformationists. He returns to this issue, in a somewhat clearer fashion, in a later letter to Gallitzin (*B* 5.12).

22 Antonie van Leeuwenhoek (1632–1723), the Dutch microscopist and 'father of microbiology', discovered single-cell organisms ('animalcules') and spermatozoa.

23 This refers back to the sentence on p. 99: 'What [man] does not know is the essence of this matter, the mechanism of the changes he sees in this matter, and the initial origin of movement.'

24 'Consider God to be, respect him, but don't search for him, for you will end up doing nothing but searching.' Philemon in Grotius and Clericus (eds), *Menandri et Philomonis reliquiae*, p. 340. (English translation of this passage courtesy of Dr Ben Schomaker.) On Philemon, see note 14 above.

25 Leonhard Euler (1707–83), Swiss mathematician and physicist. Hemsterhuis here refers to his 'Examen d'une controverse sur la loi de réfraction des rayons de differentes couleurs par rapport à la diversité des milieux transparans par lequels ils sont transmis', in *Histoire de l'Academie royale des sciences et belles lettres* (Berlin, 1755), pp. 294–309.

26 See pp. 89–99.

27 Philostratus of Athens, *Lives of the Sophists*, 491, 589. Trans. W. C. Wright (London: Loeb, 1921), pp. 28–9 (on Favorinus), and pp. 230–1 (on Hadrian). Philostratus was a sophist of the Roman period, whose *Lives of the Sophists* was written between 231 and 237 AD and is a semi-biographical history of the Greek sophists, including a life of Favorinus of Arelate (c. 80 – c. 160 AD) and of Hadrian (or Adrianus) of Tyre (c. 113–93 AD).

28 Menedemus of Eritrea (c. 350 – c. 277 BC) posited one sole good in the mind which was manifest in different particular virtues. The reference is taken from Plutarch's *Moralia*, 440E.

29 Hemsterhuis returns to this topic in detail in a letter to Gallitzin in May 1779 (*B* 2.21).

30 See pp. 104–5.

31 This is the principal thesis of the opening paragraphs to the *Letter on Desires* above.

32 Marcus Junius Brutus (85–42 BC).

33 Timoleon (c. 411–337 BC) was a Corinthian statesman and general who was involved in the successful plot to assassinate his brother, Timophanes, Tyrant of Corinth. As a result, he withdrew from civic life for twenty years.

34 Plutarch, 'Life of Timoleon', in *Lives*, VI, 238c–d: 'So true is it that the purposes of men, unless they acquire firmness and strength from reason and philosophy for the activities of life, are unsettled and easily carried away by casual praise and blame, being forced out of their native reckonings.… For repentance makes even the noble action base.' Plutarch, *Lives*, trans. B. Perrin (London: Loeb, 1918), pp. 272–5.

35 Cf. 'The first person who, having enclosed a plot of ground, bethought to himself to say *this is mine*, and found people simple enough to believe him, was the true founder of civil society. How many crimes, wars, murders, how many miseries and horrors mankind

would have been spared by him who, pulling up the stakes or filling in the ditch, had cried out to his kind: Beware of listening to this imposter' – the opening words to Part 2 of Jean-Jacques Rousseau's *Discourse on the Origin of Inequality among Men* (Translated by V. Gourevitch [Cambridge University Press, 2018], p. 165).

36 See, e.g., *Letter on Desires*, p. 84.

37 Plato, *Protagoras*, 337d2–3. Trans. W. R. M. Lamb (London: Loeb, 1924), pp. 180–1. However, Plato ascribes this claim to Prodiclus.

38 Hemsterhuis here seems to expressly avoid the term 'inspiration'.

39 See *Letter on Desires*, pp. 84–5.

40 Seneca, *Quaestiones naturales*, I, *praefatio* 5: 'After all, man is a contemptible thing unless he rises above his human concerns'. Trans. T. H. Corcoran (London: Loeb, 1971), pp. 4–5.

41 See p. 91.

42 For example, by Longinus in *Of the Sublime*, IX.7.

43 Pindar, *Nemean odes*, VI, lines 1–2: 'There is one race of men, another of gods; but from one mother we both draw our breath.' Trans. W. H. Race (London: Loeb, 2012), pp. 60–1.

44 These are not direct citations, but some of the phrases are drawn from Hierocles of Alexandria's *Commentarius in aurea pythaogoreorum carmina*, particularly the passage at XXIV.7.2.

45 Caius Marius (156 BC – 86 BC). The reference is to Plutarch's 'Life of Marius': 'When asked by [the other] what he had to say, and what answer he would make to the governor, he answered with a deep groan: "Tell him, then, that thou hast seen Caius Marius a fugitive, seated amid the ruins of Carthage."' Plutarch, *Parallel Lives*, p. 577.

46 Hassan ibn al-Sabbah (c. 1050–124), a missionary who converted people in northern Iran to Nizari Isma'ilism and the founder of the Nizari Isma'ili state and its militia, known as the Order of Assassins.

47 See p. 105.

48 On Daedalus's sculptures, see *Letter on Sculpture*, p. 67.

49 That is, in the *Letter on Sculpture* above.

50 That is, Democritus applied the physical sciences to atomist philosophy, Hippocrates applied the physical sciences to medicine and Archimedes applied mathematics to mechanics. Plato's application of 'one science to another neighbouring science' could refer to several of his practices (e.g. the use of mathematics in philosophy, or the use of geometry in the physical sciences).

51 It is not obvious that this further treatment of the subject was ever written.

52 According to what has become known as Kepler's first law, 'perihelion' and 'aphelion' refer to the two apsides in an elliptical orbit at which the planet is closest to and furthest from its sun, respectively. This whole passage is full of the language of Keplerian astronomy.

53 On the Egyptian and Etruscan spirit of the marvellous, see *Letter on Sculpture*, pp. 68–9.

54 Hemsterhuis is presumably drawing here on his experience as a military engineer in the late 1740s. The Battle of Leuctra (371 BC) saw the Thebans beat the Spartans, the Battle of Cannae (216 BC) witnessed Hannibal's Carthaginians beating the Romans and in the Battle of Pharsalus (48 BC) Caesar's forces defeated Pompey's.

55 What is referred to by this 'it' is unclear.

56 That is, lovers of luxury.

57 Juvenal (c. 62–142), the Roman poet whose *Satires*, published at the beginning of the second century AD, are full of sarcastic invective and pessimism.

58 The status of the 'Addition and Clarifications' is unclear – see van Sluis's introduction for more details. In short, they did not appear in any collection of Hemsterhuis's works

until 1792 and seem to have been transmitted via Charles Guillaume Frédéric Dumas (1721–96). What remains undecidable is the extent to which Hemsterhuis himself was involved in articulating the final form of these additional remarks.

59 While these responses to and critiques of the *Letter on Man* are not specified, it is likely that Hemsterhuis's discussions with Dumas are one such source, as well as, perhaps, the early review that appeared in the *Journal encyclopédique* in September 1772, which criticises *Letter on Man* for 'present[ing] the truth in all its austerity' (see van Sluis's introduction, p. 29). The emphasis on obscurity in the 'Addition' further suggests that its author might have had Diderot's 1773 commentary on *Letter on Man* in mind.

60 Presumably François Fagel.

61 Willem Jacob 's Gravesande (1688–1742), Professor of Mathematics and Astronomy at the University of Leiden and the major progenitor of Dutch Newtonianism. Hemsterhuis was likely briefly taught by him in private lessons in the year before his death. The reference here is to a fragment published two years after *Letter on Man and his Relations*: 's Gravesande, 'Essais de métaphysique', *Oeuvres philosophiques et mathématiques*, ed. J. N. S. Allamand (Amsterdam, 1774), vol. 2, p. 193.

62 This resumes, in simplified form, the definition of inertia given on p. 100.

63 The following several paragraphs (to '… affirm or deny anything!') follow almost verbatim *Sophylus*, *EE* 2.57–8 (although the last of these paragraphs develops the argument in a slightly more extended form). They also closely follow Hemsterhuis's two unpublished fragments, *On the Immaterial*.

64 See p. 94.

65 See p. 105.

66 The following several paragraphs (to '… then become nothing?') follow almost verbatim *Sophylus*, *EE* 2.58–9. They also closely follow Hemsterhuis's two unpublished fragments, *On the Immaterial*.

67 The following several paragraphs (from 'let us suppose', here, to '… ultimately useless investigations.') follow almost verbatim *Sophylus*, *EE* 2.59–60. They also closely follow Hemsterhuis's two unpublished fragments, *On the Immaterial*.

68 Lucretius, *De rerum natura*, book 1, lines 445–6: 'Therefore besides void and bodies no third nature can be left self-existing in the sum of things.' Trans. Rouse and Ferguson Smith, pp. 38–9.

69 Aristotle, *Politics*, 1269a5. Trans. Rackham, pp. 128–31.

Philosophical Description of the Character of the Late Mr. F. Fagel

1 This short work – part *oratio funebris*, part utopic portrait of an ideal philosophical type – was written and published immediately after the death of Hemsterhuis's friend François Fagel on 28 August 1773, just a few months after the appearance of the *Letter on Man*, which was implicitly addressed to Fagel.

2 Statius, *Achilleid*, book 1, lines 3–5: 'Goddess, … Be it your pleasure that I (so I crave) traverse the whole hero, as he hides in Scyros.' Trans. D. R. Shackleton Bailey (London: Loeb, 2003), pp. 312–13. Scyros is an island in the Aegean and the hero here referred to is, of course, Achilles.

3 The publisher and place of publication are unknown. During 1773, two different Dutch translations of this short work immediately appeared.

4 Frederick Salomon Tavel (1721–80).

5 Fagel matriculated at Leiden in September 1754 and completed his studies in law on 23 July 1759.

6 Hendrick Fagel (1706–90), clerk of the States-General from 1742.
7 The States-General was the federal assembly of the Dutch Republic with representatives from each of the seven provinces. It met in The Hague and often formed a power bloc that competed with the Stadtholder. Fagel was authorised to assist his father from 1762 and was made co-clerk in 1766.
8 A reference to Fagel's work in the States-General, which was a rallying point for Republicans. Hemsterhuis was fond of dubbing the Dutch Republic 'the most complex Republic that ever existed' and the fragile complexity of its constitution formed the heart of his political reflections during the turmoil of the Patriot Revolt during the 1780s.
9 It is possible that Hemsterhuis first came to know Fagel when tutoring him in classical languages during the 1750s.
10 The Fagels had occupied the position of clerk to the States-General in a quasi-dynastic fashion since the mid-seventeenth century – see van Sluis's introduction above.
11 Anna Maria Boreel (1739–81); they had wed in 1764.
12 Jacob Boreel (1711–78).
13 A fifth son was born five months after Fagel's death.

Appendix. Corrigenda, *Œuvres philosophiques*, 2015

Corrigenda to François Hemsterhuis, *Œuvres philosophiques*, ed. J. van Sluis. Leiden: Brill, 2015.

p. 162, line 161: 'des des' → 'des'
p. 213, line 588: 'Anfwort' → 'Antwort'
p. 236, line 865: 'peur' → 'pour'
p. 326, line 149: 'it' → 'il'
p. 344, line 149: 'par conséquent je suis'] *P om.*
p. 402, note: 'Talents' → 'Talents.'
p. 474, line 1319: 'jour' → 'jours'

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