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Ramakers, Bart

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Science, the arts, and society in the eighteenth-century Dutch Republic

PETRUS CAMPER IN CONTEXT

Klaas van Berkel and Bart Ramakers (eds.)

To be read tastefully and fruitfully

Petrus Camper as a public scientist

BART RAMAKERS

Such is today the variety and the extent of the *sciences*, that it is necessary, in order to profit from them comfortably, to be at the same time a man of letters. In fact, the principles of the *sciences* would be tedious, if the belles-lettres did not provide them with grace. The truths become more accessible through clarity of style, through cheerful images, and through the ingenious devices through which they are presented to the mind.¹

Introduction

Petrus Camper's name and fame as a scientist rested not just on the basis of his scientific findings, but also on the way in which he managed to convey them in speech and writing. Naturally, most learned reputations are constructed through communicating, reporting, or documenting the scientific insights and achievements of the scientists in question, either by themselves or by witnesses, colleagues, relatives, friends, or disciples. In this way, Camper's reputation after his death was cared for by his son Adriaan Gilles.² But he had already established it himself during his lifetime, in a large number of articles in greatly varying journals, publications that derived their meaning as much (if not more) from the manner in which they were formed and formulated – in other words, from their rhetoric – as from their content.

The word 'meaning' is taken here not so much as scientific importance, that is, the contribution that Camper's publications made to the progress of science, pure or applied – an importance they undoubtedly also had – but more in the sense of the pleasure, the entertainment provided to the readers of his

1 *Encyclopédie*, vol. xiv, 788: "Telle est aujourd'hui la variété & l'étendue des *sciences*, qu'il est nécessaire, pour en profiter agréablement, d'être en même temps homme de lettres. D'ailleurs les principes des *sciences* seroient rebutants, si les belles lettres ne leur prêtoient des charmes. Les vérités deviennent plus sensibles par la netteté du style, par les images riantes, & par les tours ingénieux sous lesquels on les présente à l'esprit'.

2 Van der Korst, *Het rusteloze bestaan*, 4.

articles. That pleasure or entertainment lay in more than just the communicated insights themselves: in the description of the (sometimes very practical) circumstances under which this process had taken place; of his confrontation with the *auctoritates*, both old and contemporary, whom he joined or rebelled against; or of the motives that had guided him during his research. In eighteenth-century learned publications, the researcher himself moved into the foreground. He did not restrict himself to the *logos* of his scientific argumentation, but left ample space in his argument for *ethos* and *pathos*. Circumstances, relations, and motives were explained extensively, creating a familiar atmosphere, which allowed the reader, as it were, to witness the progress of knowledge over the scientist's shoulder.

One is tempted to call Camper a populariser of science, but that sounds contradictory to the degree that science in the eighteenth century was, on the whole, already popular.³ Scientific curiosity, an interest in the most recent discoveries, belonged to the habit of the enlightened citizen, who, as an amateur who might or might not possess an academic education, sometimes liked to practice science himself. Not just the practice of science was popular, but also its destination and purpose. It aimed at a broader audience than the initiated exclusively, and it served, even in its pure form, a common good, which in the context of the Enlightenment in the Republic could also be purely religious: 'The scientists of the time were men of society, taking an interest in everything that could be useful to the country in which they lived'.⁴ Hence little difference was seen, let alone observed, between pure and applied science.⁵ It is more appropriate, therefore, to call Camper a public scientist, since in his so-called 'practice of knowledge',⁶ especially in its publicity element, he met science's public nature and function more than others did, and he displayed great literary creativity in presenting his scientific ideas. He mobilised science in order to clarify issues, solve problems, and settle disputes of general interest.

To successfully perform his public role, Camper did what the lemma *Sciences* in the *Encyclopédie* of Denis Diderot (1713-1784) and Jean le Rond d'Alembert (1717-1783), quoted above, expressly asked for: he provided the principles of science with the grace of the *belles-lettres*.⁷ The exercise and communication of science was a part of the 'republic of letters'.⁸ A good scientist

3 Generally, see Lynn, *Popular science*. I also want to avoid the confusion with what Roy Porter calls 'popularized medicine'. Porter, 'Spreading medical enlightenment', 215. On such popularisers and their amateur audience also see Rousseau, *Enlightenment borders*, 276.

4 Gunnarsson, 'Introduction', 6.

5 Gross, Harmon, & Reidy, *Communicating science*, 112.

6 For an overview of this 'practice of knowledge' in the eighteenth century, see Holenstein, Steinke, & Stuber, 'Introduction'.

7 Gaukroger, *Collapse of mechanism*, 239.

8 Gaukroger, *Collapse of mechanism*, 232-240. Also see Brockliss, 'Starting-out'.

was by definition a good writer.⁹ This was certainly aided by choosing the vulgar tongue in which most scientific, general-interest, and spectatorial periodicals were written. Accordingly, Camper published most of his articles in Dutch. And in Dutch he wrote satirical plays and a number of contributions to spectatorial journals regarding topics that were exemplary of this genre.¹⁰ He has even been called a ‘columnist’.¹¹

Publication behaviour

This chapter is a first foray – and nothing more than that – into the pragmatics of scientific communication in Camper’s work. To this end, three cases are discussed. These concern his ideas on the origin and skin colour of black Africans, on symphysiotomy, and on the form and design of good shoes, respectively, as presented in five publications: three on symphysiotomy and one on each of the other two subjects.¹² They fall into varying disciplines: anthropology and anatomy, orthopaedics (specifically podiatry), and obstetrics. The scientific-historical, and more specifically medical-historical aspects of those ideas, their content, creation, and theoretical and practical argumentation, have already to a greater or lesser extent been discussed. This is not true for the manner in which they were presented in written as well as in spoken form (the first case having been the subject of a public presentation that was subsequently published).

First of all, there has been no scholarly attention for the nature and audience of the chosen channels of publication. In these and many other cases, those channels were neither periodicals of foreign scientific societies, like the *Philosophical transactions* of the Royal Society in London or the *Mémoires* of the Académie de Chirurgie in Paris, nor those of Dutch scientific societies,

9 Rousseau, *Enlightenment borders*, 289 (about Buffon); Pender, *Rhetoric and medicine*, 39.

10 Van der Korst, *Het rusteloze bestaan*, 44, 79–84. For a list of Camper’s publications, see Meijer, *Race and aesthetics*, 217–230.

11 Van der Korst, *Het rusteloze bestaan*, 79.

12 Camper, ‘Kleur der zwarten’ (Oration on the origin and colour of blacks); Meijer, *Race and aesthetics*, 221, no. 56; Camper, ‘Brief’ (‘Letter (...) to the physician David van Gesscher (...) on the benefit of the slicing of the pubic bones in difficult births, by the aid of which a firmly wedged head is easily and safely released, preserving mother and child, and avoiding the caesarean section and the hook’; Meijer, *Race and aesthetics*, 221, no. 55); Camper, ‘Verhaal van de konstbewerking’ (‘Account of the operation and happy outcome of the slicing of the pubic bones (...) by J.C. Damen (...) Communicated by Petrus Camper’; Meijer, *Race and aesthetics*, 226, no. 102); Camper, ‘Verhaal van den gelukkigen’ (‘Account of the happy outcome of the slicing of the pubic bones, for the second time on the same woman (...) by J.C. Damen (...) Communicated by Petrus Camper’; Meijer, *Race and aesthetics*, 227, no. 105); Camper, ‘Den besten schoen’ (‘On the best form of shoe’; Meijer, *Race and aesthetics*, 225, no. 92).

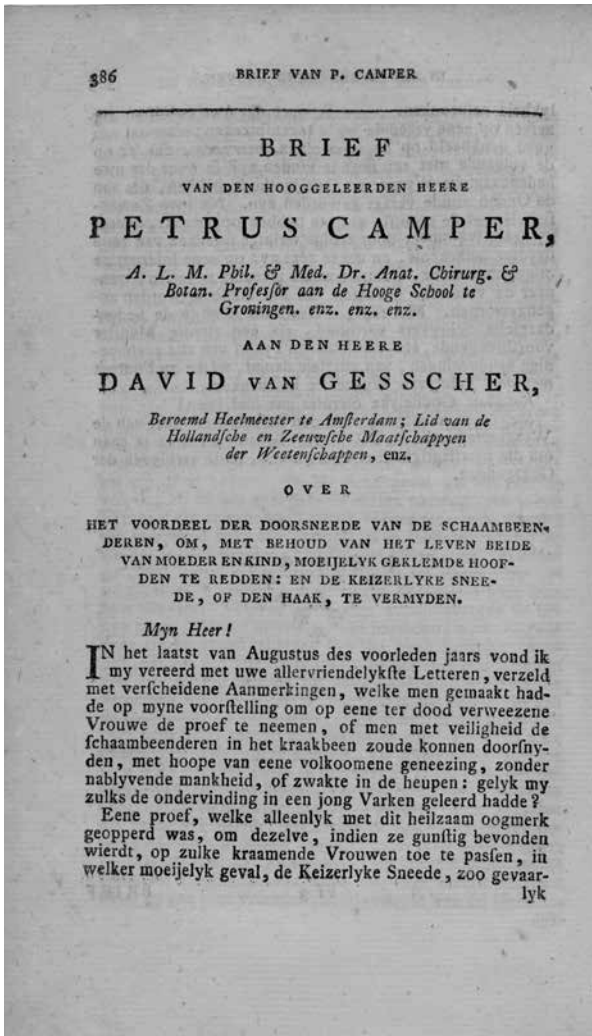


Fig. 1 *Opening of Camper, 'Brief', 386. Groningen, University of Groningen Library. Image © University of Groningen Library.*

like the *Verhandelingen* (Transactions) of the Hollandsche Maatschappij der Wetenschappen (Holland Society of Sciences) in Haarlem, or the *Verhandelingen* of the Bataafsch Genootſchap der Proefondervindelyke Wysbegeerte (Batavian Society for Experimental Philosophy) in Rotterdam. The contributions on symphysiotomy appeared in a general-interest journal: the *Vaderlandsche letter-oefeningen* (the National Literary Exercises) (fig. 1), and those on the origin and skin colour of black Africans appeared in a spectatorial journal called *De Rhapsodist* (The Rhapsodist) (fig. 2). Only the article on the best

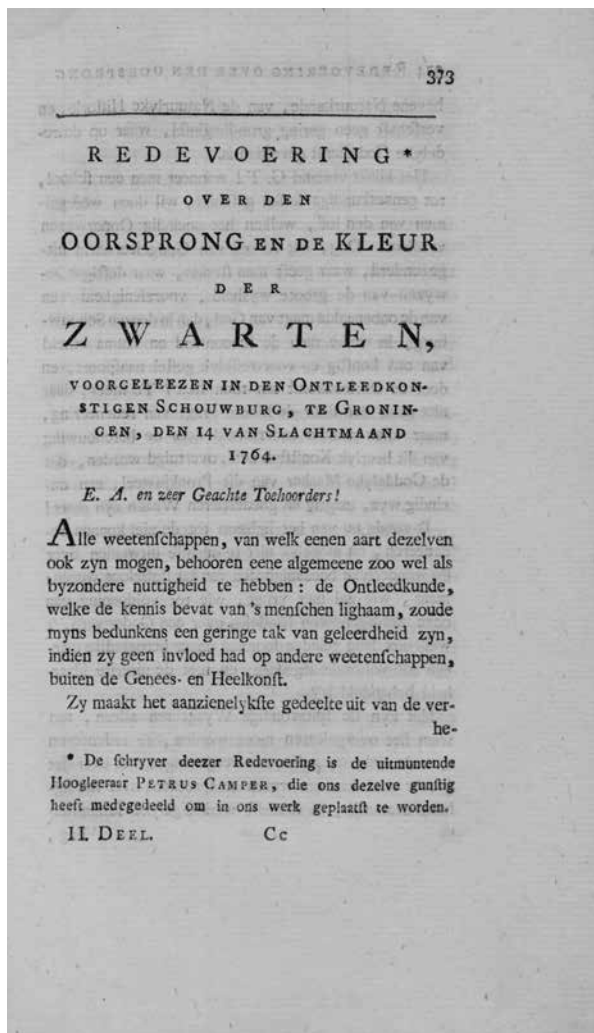


Fig. 2 *Opening of Camper, 'Redevoering', 373.* Groningen, University of Groningen Library. Image © University of Groningen Library.

form of shoe appeared in a predominantly scientifically oriented periodical: the *Genees-, natuur- en huishoud-kundig kabinet* (Cabinet of Medical, Natural and Domestic Science) (fig. 3).¹³

According to the subtitle, the *Vaderlandsche letter-oefeningen* contained, aside from book reviews on varying subject areas, a category called *Mengelwerk* (Miscellaneous), 'tot Fraaije Letteren, Konsten en Weetenschappen be-

¹³ On this journal, see Delprat, 'De geschiedenis', 77-78. Also see Visser, 'Arts en geneeskunde'.



Fig. 3 *Opening of Camper, 'Verhandeling', 275.*
Groningen, University of
Groningen Library. Image
© University of Gronin-
gen Library.

trekkelyk' ('pertaining to Fine Letters, Arts and Sciences').¹⁴ This shows that the broader audience viewed the practice of the sciences as a separate activity that was nevertheless closely tied to the arts and letters.¹⁵ That Camper aimed to reach not just an international, learned audience, but also a national, predominantly Dutch-speaking body of readers, and furthermore made no prin-

¹⁴ Leemans & Johannes, *Worm en donder*, 58-59, 198-199.

¹⁵ Also see Gunnarsson, 'Introduction', 3, 8.

cial difference between publications in a French or English scientific journal on the one hand and a general-interest periodical in his own language on the other, is evident from the fact that he let contributions from the one category appear in the other in (nearly) unchanged but translated form. (Coincidentally, journals such as the *Philosophical transactions* also had a broader body of readership than just ‘virtuosi’.¹⁶)

One aspect of Camper’s publication tendencies that has also not drawn attention is the genre of his contributions. While his work is called a *Verhandeling* (Transaction) in the instance of the best form of shoe, his writing on the origin and skin colour of black Africans is called a *Redevoering* (Oration), and his contributions on symphysiotomy are successively called a *Brief* (Letter) in one instance and *Verhaal* (Narration) in the other two. These indications of genre were not randomly chosen. They had consequences for the form and content of the contributions; for the discursive practice followed in them; for the nature and quantity of information that was offered; for the order and structure – also visually – in which this happened; for word choice and style (including punctuation); and for the possibility of including illustrations, figures, graphs, and tables. The variety of genres in which Camper reported on his findings and ideas, and the clear connection to literature – that is, to those arts and letters from the subtitle of the *Vaderlandsche letter-oefeningen* that two of his articles, the ‘letter’ and the ‘narration’, hint at through their names – suggest that the scientific article of the second half of the eighteenth century did not yet possess the uniformity, specialisation, and purely analytic and argumentative character in design and intention that it would receive as its attributes in the twentieth. Science still was in its ‘pre-establishment stage’.¹⁷ Before the discussion of the three cases, therefore, some insights are discussed regarding international research on what has in overview been described as the ‘scientific literacy’ or ‘scientific communication’, the ‘language of science’ or the ‘communicative behaviour’ of eighteenth-century scientists.

The language of science

Research into the style of scientific articles from the eighteenth century shows that narrative and epistolary elements played a strong role, that the personal and the social were expressly referred to (which is to say there was reference

16 Bazerman, *Shaping written knowledge*, 133. On the practice of offering medical articles to general-interest periodicals, see Porter, ‘The rise of medical journalism’, 7. On the development of scientific journals, see Kronick, *A history of scientific & technical periodicals*.

17 Gunnarsson, ‘Introduction’, 6.

to the author in person, as well as his relation to other researchers and to his reading public in general), and that there was room in this communication for emotional expression.¹⁸ The Swedish sociolinguist Britt-Louise Gunnarsson calls this ‘textually created scientificity’ and distinguishes between three levels: a cognitive, a social, and a societal one.¹⁹

The cognitive level applied to the purely scientific information contained in the article. It was formed by that information itself and by the way it was acquired and subsequently analysed and described. The stepwise, plausible description of an experiment, including the usage of jargon, belonged to this level.²⁰ The social (or disciplinary) level related to the scientific field or network in which the author operated and was constituted by references to other researchers, to other findings and publications, but also by the usage of pronouns that expressed the position of the author in regard to other persons in the field or network. The use of jargon could also be indicative of this social level. It allowed, in combination with other information, observations on the level of professionalisation and international status of the discipline in question. The societal level, finally, related to the way in which the author socially positioned his object of study, but also himself, and highlighted the importance or usefulness of his findings as well as, again, his own status as a scientist through organisation, style, and choice of words. At this level, the use of jargon and the inclusion of illustrations, figures, graphs, and tables could have the function of demonstrating the expertise and competence of the author.²¹ Using, or adapting to, existing genres of written communication could also be indicative of this level, as well as the choice for something other than a strictly scientific channel of publication.²²

For example, eighteenth-century medical articles from Sweden predominantly described individual cases (experiments and observations) and had no uniform structure. Moreover, judging from the high frequency of the personal pronoun ‘I’ and the mention of other researchers by name, their authors aimed at creating and demonstrating relationships with other scientists, with the express goal of appearing as experts.²³ We can add a few insights to this. First, eighteenth-century scientific journals exhibited a more competitive, agonal character than contemporary scientific books,²⁴ a character that was demon-

18 Gross, Harmon, & Reidy, *Communicating science*, 69.

19 Gunnarsson, ‘Scientificity’, 304–305. See also Gunnarsson, ‘Scientific discourse’, *passim*.

20 See also Bazerman, *Shaping written knowledge*, 141.

21 See also Bazerman, *Shaping written knowledge*, 140.

22 See also Gunnarsson, ‘Introduction’, 8.

23 Gunnarsson, ‘Scientificity’, 317, 321, 327. Regarding the development of the experimental article, see also Bazerman, *Shaping written knowledge*, 65.

24 Bazerman, *Shaping written knowledge*, 130. See also Schellenberg, ‘Scientific literacy’, 96.

strated primarily at the social and societal level of the publications. Second, journal publishing saw a period of growth during the eighteenth century and strongly increased public interest in science through the use of the vernacular.²⁵ (The contributing factor here is that it was probably easier for most authors to communicate scientific insights in a literary fashion by using their mother tongue, instead of Latin or one of the modern foreign languages.) Third, scientists who regularly published in journals became more or less public figures.²⁶ This was what the practice and publication of science was also meant to achieve. Fourth, especially in the case of articles where scientific contention was addressed or pleas were made advocating certain measures or solutions, the audience could be implicitly or explicitly called on as a third party to settle the dispute.²⁷

The narrative and epistolary reporting of scientific findings that we come across in eighteenth-century scholarly articles, including those of Camper, fitted an approach of reality – of nature in particular – that was aimed more at characterisation than at classification, and that attempted to present reality as self-evident and natural with every means available through language, in accordance with the classical ideal of *vraisemblance*.²⁸ This approach implied, at the level of language, amplification instead of reduction, and stimulated the use of the imagination, also visually, through the use of illustration. Truth lay enclosed in words, not numbers or statistics – although the latter could of course be added as substantiation. The narrative element was foregrounded whenever concrete cases of experiment and observation were described, including the chronology, space, and circumstances in which these took place. The epistolary element is found in the presentation of the treatise as a letter, with a fitting opening, addressing the addressee (normally the editors of the journal), writing in first person, and referring repeatedly to the author's relationship with the editors and other researchers as well as readers in general.²⁹

Three trends are general: the daring and confidence in making scientific assertions; the explanation of the natural world through measurement and quantification; and the confronting – for confirmation or denial – of claims with existing insights from both modern researchers and *auctoritates* from antiquity.³⁰ The addition of a clear title (which sometimes took the form of

25 Schellenberg, 'Scientific literacy', 94-95; Gaukroger, *Collapse of mechanism*, 240-241; Rousseau, *Enlightenment borders*, 280

26 Bazerman, *Shaping written knowledge*, 134.

27 Bazerman, *Shaping written knowledge*, 135. Also see Schellenberg, 'Scientific literacy', 95.

28 Sörman, 'Science and natural language', 144-145, 149.

29 Gross, Harmon, & Reidy, *Communicating science*, 71-72; Bazerman, *Shaping written knowledge*, 132.

30 Gross, Harmon, & Reidy, *Communicating science*, 77.

what is now known as an indicative abstract), of chapters and sections, of an introduction and a conclusion, of drawings with an explanatory legend, of quotations, and the use of different fonts, all of this fitted a general tendency in which – for the sake of clarity, and with an eye to the understanding, and persuasion, of the reader – more attention was paid to textual and visual presentation.³¹

As the eighteenth century progressed, scientific writing would come to encompass more than just the description of isolated observations. Observed phenomena started to be combined, connected, and explained through the use of analogy, deducing general rules and practical applications.³² All of these acts presupposed that the person performing them was not just a good scientist but also a good writer who could construct, support, and voice his argumentation in a literary manner.

The colour of black Africans

Camper's oration on the origin and skin colour of black Africans only appeared in 1772, six years after he had delivered it 'in den Ontleedkonstigen Schouwburg' ('in the anatomical theatre') of the University of Groningen, set up in the vestry of the former *Broerkerk* (Greyfriars' Church) (fig. 4).³³ His particular choice of publication channel, the spectatorial journal *De Rhapsodist*, points to the fact that he sought to address a broader audience than just scientists.³⁴ One could also turn this statement around and say that a broad audience sought to read and listen to Camper. By this time, he had become a science communicator of some renown whose appearances, either in print or in person, attracted considerably large crowds, be they readers or listeners. In fact, the lecture in question was a public event, not a classroom lecture.

Although in it he did indeed invoke scientific views – and he also demonstrated them in the course of his argument by using a series of preparations – these were not insights that found their origin with him. His primary goal was not the transferal of scientific knowledge in and of itself, but rather the presentation of such knowledge, primarily anatomical, to support an anthropological position with societal implications, namely that there was no prin-

31 Gross, Harmon, & Reidy, *Communicating science*, 82-83, 104-111 (on tables and figures).

32 Gross, Harmon, & Reidy, *Communicating science*, 94. On Camper and analogical reasoning, see Van der Korst, *Het rusteloze bestaan*, 64, 70, 73.

33 On the significance of this lecture for Camper's anthropological views, see Meijer, *Race and aesthetics*, 125-126, *passim*; Van der Korst, *Het rusteloze bestaan*, 126.

34 On this genre in the Netherlands, see Buijnsters, *Spectatoriale geschriften*; Sturkenboom, *Spectators*.

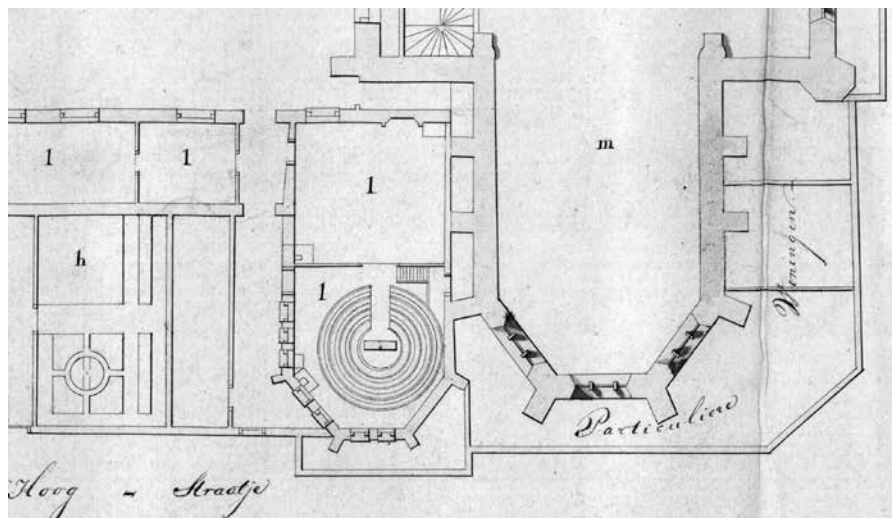


Fig. 4 Artist unknown, *Detail of the floor plan of the former Broerkerk and adjacent university buildings*, 1819. Drawing. Groningen, RHC Groninger Archieven. Image © Groninger Archieven.

In the vestry left of the church, the circular anatomical theatre with its steeply ascending tiers is clearly visible.

incipal difference between black and white people – that is, between Africans and Caucasians. Consequently, the form and content of this text are shaped mainly by Camper’s intentions on the societal level rather than by those on the cognitive and social levels.

Before examining the argument itself, it is vital to explain the communicative situation in which Camper gave his lecture. He spoke in what might be called the centre of early modern medical education: the anatomical theatre, where he normally taught students the *ontleedkunst* (the ‘art of dissection’ or ‘anatomy’), which he would do in Latin. For the occasion, however, the audience consisted entirely (or largely) of people from outside the university. Camper speaks of ‘eene inleiding van deze Ontleedkundige lessen’ (‘an introduction to these Anatomy classes’), a public lecture to inaugurate an otherwise private lecture series.³⁵ The listeners are described as *Stadsgenooten* (fellow citizens),³⁶ whom he repeatedly addresses directly as *Toehoorders* (Listeners), *Gylieden* or *Ulieden* (You), and once as *myne Heeren* (Gentlemen),³⁷ which

³⁵ Camper, ‘Kleur der zwarten’, 375.

³⁶ Camper, ‘Kleur der zwarten’, 374.

³⁷ Camper, ‘Kleur der zwarten’, 381.

indicates that these were (at least mostly) men. As noted, they were not presented with a regular lecture (and no dissecting took place), but a *Redevoering* (Oration) in which anatomical preparations were used in support of the argumentation. Moreover, it was a public lecture presented in Dutch.

This public nature is significant in light of the intention and effect of Camper's argumentation, as are the choice of Dutch and of the location of the anatomical theatre. Not only did he do his fellow citizens a favour by providing a public lecture, but conversely they did him a favour by witnessing it, including the anatomical demonstration that was a part of it. Camper wanted to practise science on an empirical basis, science that was depending, for its goal and effect, upon others to witness it – others who in turn became empirically convinced, by witnessing the anatomical demonstration, of the correctness of what he was arguing. For this reason he held his argumentation in the anatomical theatre, or at the very least he was aware that its location would increase the persuasiveness of his argumentation. He describes the setting in the following way:

It sounds strange, honoured listeners, when one wants to make a hall, intended for medical lessons, resound with the praises which the infinite Supreme Being deserves. However, with the exception of the school of theology, where does one give stronger, where more solemn evidence of the great wisdom, providence, and of the unlimited power of God, than in this theatre, where the beauty and perfection of our ingenious and excellent constitution are researched and displayed through the art of dissection? The more so, since not everyone by the sheer power of reasoning, but all without exception through the observation of this glorious artwork itself are being convinced, that the Divine Maker of this jewel is an infinitely wise, mighty, and benevolent being!

Het klinkt vreemd, G.T.! wanneer men een school, tot geneeskundige lessen geschikt, wil doen weërgalmen van den lof, welken het oneindig Opperwezen verdient. Dog, het school van Godgeleerdheid uitgezonderd, waar geeft men sterker, waar deftiger bewyzen van de groote wysheid, voorzienigheid, en van de onbepaalde magt van God, dan in deezen Schouwburg, in welke men de schoonheid en volmaaktheid van ons konstig en voortreffelyk gestel naaspoort, en door de Ontleedkonst ten toon stelt? Te meer, daar niet ieder een door de bloote kragt van redeneering, maar allen zonder onderscheid door de beschouwing van dit heerlyk Konststuk zelf, overtuigd worden, dat de Goddelyke Maaker van dit Pronkjuweel, een oneindig wys, magtig en goedertieren Wezen zyn moet!³⁸

This flowery passage constitutes the end of a kind of statement of principles – a statement in which, at the start of his lecture, Camper emphatically identi-

³⁸ Camper, 'Kleur der zwarten', 374. Part of the translation appears in Meijer, *Race and aesthetics*, 12.

fied himself with the physico-theological tradition in which he was trained. It was precisely this tradition of natural history that stimulated literary renderings of scientific report.³⁹ His statement was primarily intended to define science outwardly. He was, after all, addressing an audience consisting primarily of non-scientists. But in the case of this lecture another intention was added, namely the reinforcement of the argumentation carried therein. Camper does not say this explicitly, but the implication of the statement that in an anatomical theatre one can use dissection of the human body to come to know the wisdom, might, and benevolence of God implies that anatomical findings possessed great, if not absolute persuasive power in his eyes. In this case it meant that when black and white people were equal anatomically, it would not be reasonable and thus despicable to see and treat them as unequal, as this went against Creation.

Camper professes to want to verify whether an anatomical analysis of the skin of Africans ‘eenig lichte konde byzetten’ (‘could shed some light’) on what he calls a ‘bewezen waarheden’ (‘proven truth’) of religion, namely that all men are descended from the first man: Adam.⁴⁰ A few lines earlier he has already explained that he judges the contrary view – that Africans are a separate race that does not descend from Adam – as being *verkeerdelyk* (mistaken). His argument boils down to the fact that the difference in skin colour must be completely attributed to climatic and geographical circumstances.⁴¹ Anatomically speaking, there is no difference between black and white people, or at least little enough difference where the skin colour is concerned, that he concludes his inquiry with the thesis ‘dat wy allen zwart zyn, dog meerder of minder’ (‘that we all are black, some more, some less’) – a statement undoubtedly meant to provoke, or at least stimulate, his audience.⁴²

He starts the substantive treatment of his case by reviewing statements of a series of classical authorities on the skin colour of blacks. Where it concerns anatomical explanations that had been proven empirically incorrect, he simply contradicts them. However, he outright ridicules negative and contradictory qualifications of black Africans. When it comes to many older authors, he sees their lack of knowledge as forgivable. After all, they had little experience in natural science. But, according to Camper, contemporary researchers should have known better. In this context he takes the measure of Johann Friedrich Meckel (1714-1774), who claimed to have determined through dissection that the blood of Africans was black and that this was the cause of their

39 On this tradition in Dutch literature, see Leemans & Johannes, *Worm en donder*, 449-474.

40 Camper, ‘Kleur der zwarten’, 375.

41 On eighteenth-century discussions of the physical differences between black and white people, especially as regards their skin colour, see Cowan, *Anatomy of blackness*, 120ff.

42 Camper, ‘Kleur der zwarten’, 375.

skin colour.⁴³ He suggests that Meckel was probably so startled by the skin colour of the dissected body that he had mistaken red for black. After all, this had, according to Camper, only been the second black African that Meckel had dissected. He would undoubtedly have been ‘vriendelijker en redelijker’ (‘more friendly and reasonable’) with regards to black people if he, ‘gelyk wy in ons Land’ (‘like we in our Country’), had seen and experienced on a daily basis that whites did not view blacks as unworthy of their love.

This sets the tone for the rest of the lecture, in which Camper discusses the contemporary insights into the anatomical differences between Africans and Caucasians – or rather, their similarities – one by one, with the final point being skin colour. As the ultimate proof of their similarity, he showed four preparations from his own collection: the body of an Angolan boy, pieces of skin from the arm of an Italian sailor, the breast of a very white woman, and a shin, successively. In doing so he referred to his own findings, but also – and indeed primarily – to those of renowned contemporaries, among whom were Bernhard Siegfried Albinus (1697-1770) and Georges-Louis Leclerc, Comte de Buffon (1707-1788). The former is described as the ‘grooten’ (‘great’) Albinus, the latter as the ‘beroemde’ (‘famous’), ‘doorschrandere’ (‘highly astute’), and ‘weergalooze’ (‘unrivalled’) Buffon, ‘de grootste Natuurkenner van deze eeuw’ (‘the greatest naturalist of our age’).⁴⁴ This presentation of other researchers and their thoughts served a social function alongside the cognitive, especially when their mentioning was accompanied by such laudatory qualifications as Buffon’s. They were meant to show that there existed not just a body of knowledge, but also a network of researchers, some of whom possessed a great reputation. This was intended to increase the persuasiveness of Camper’s argumentation. Although he referred to himself and to his own research through the use of the pronoun ‘I’, he primarily took the position in this lecture of a spokesman for science as a whole, as a mediator of knowledge that was already known within the scientific community and that he was currently outlining in service of a higher goal – that is, combating prejudice against Africans. It befitted his position as mediator that, at the end of his lecture, he encouraged his audience through the use of imperatives – *Lees* (Read); *doorblader* (leaf through) – to read the works of a number of the authors mentioned.⁴⁵ Someone teaching a general public course today would do no different.

Aside from the modest number of literary and page-number references in the lower margin (marked by an asterisk or cross) (fig. 5), and perhaps also

43 Curran, *Anatomy of blackness*, 124.

44 Camper, ‘Kleur der zwarten’, 384-385, 394. On Buffon’s contribution to the debate, see Curran, *Anatomy of blackness*, 105ff, *passim*.

45 Camper, ‘Kleur der zwarten’, 394.

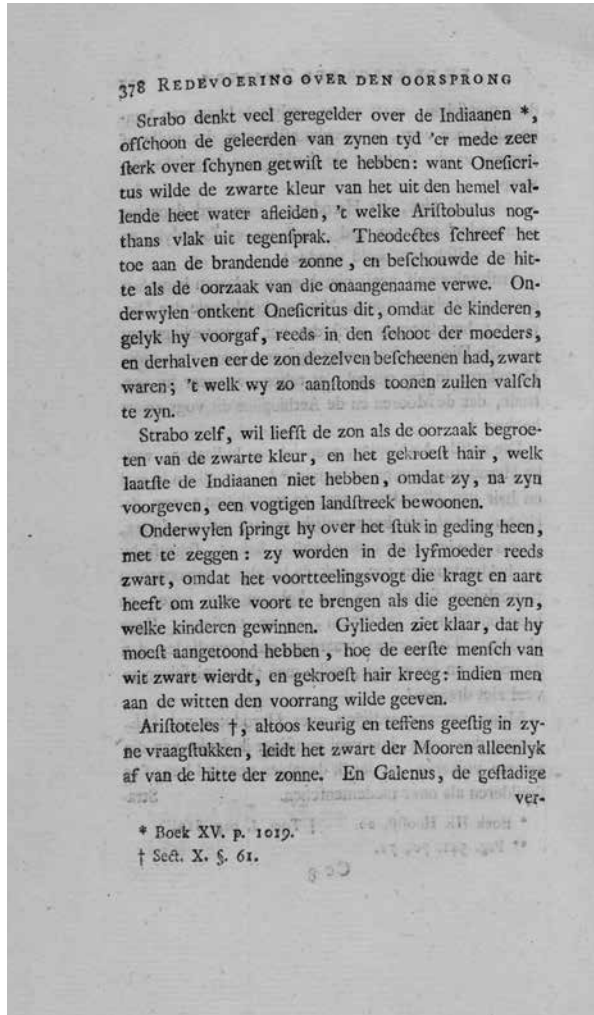


Fig. 5 Camper, 'Redevoering', 378. Groningen, University of Groningen Library. Image © University of Groningen Library.

from the content of two genuine footnotes (marked by a letter in parentheses), it seems that the text in *De Rhapsodist* is word for word that of the lecture. It is printed continuously, without interruption by, for example, titles or numbers of chapters or sections.⁴⁶ Equally, the proper names are not represented in small capitals, something that does happen in the publications that have yet to be discussed. The layout and typography are clearly not those of a scientific

⁴⁶ Once, a summary appears of five points that have been numbered in the printed text. Camper, 'Redevoering', 383-384.

treatise. This was, after all, a nearly exact replication of a public lecture of which the form and content had been predominantly determined by Camper's intentions on the societal, rather than the cognitive and social levels. At the cognitive level, for example, he does not make any extensive report of experiments, but merely summarises them and refers to their results. And at the social level he is not as much preoccupied with positioning himself as much as with science as a whole. Thus, the societal level prevails. Not only can the theme and genre be explained at this level, but it also accounts for the style and pragmatics of the text.

Characteristic is the frequent use of *wy* (we) to refer to himself and his audience. In doing so, Camper creates an atmosphere of community, of a common struggle of scientists and intelligent citizens against stupidity and prejudice. It is also a way of getting his audience to relate the proposed insights to themselves, to (as it were) incorporate them, to lead them to draw the same conclusion, and do this together with him. He is claiming, after all, something not just about black people but also about white, and so about them, the audience. In this way he rounds off his substantive discussion (in a variation on the cited thesis from the start of the lecture) with the conclusion: 'wy zyn witte Mooren' ('we are white Moors'),⁴⁷ and at the end calls on those attending to extend 'met my' ('with me') the hand of brotherhood to 'Negers en Zwarten' ('Negroes and Blacks').⁴⁸

As noted, Camper repeatedly addresses his listening (and reading) audience directly, in order to involve them mentally in his argumentation, to give them a virtual role in the determination of its progress and results. This is a simple but effective strategy meant to win them over to his side. This type of strategy is used predominantly where the audience is expected to take part in the process of empirical investigation through its own observation, and to fulfil its role, as described earlier, of witness, namely during the demonstration of the anatomical preparations. Not only does Camper inform his listeners that he is showing these to them – 'Ik toone Ulieden' ('I show You') – but he emphatically calls on them to see the same as he does – 'Zie daar!' ('Behold!'); 'Gylieden ziet' ('You see') – and to reach the same conclusions: 'Oordeel nu, Toehoorders! of (...)' ('Now judge, Listeners! whether (...)').⁴⁹ He also anticipates their possible questions and objections. He reads, as it were, their thoughts and explicates these. In this manner he suggests not only that he is having a dialogue with his audience, but attributes to them the ability to come up with these questions and objections themselves. Once he asks a question without specific address: 'Wat zal men zeggen van de kleur?' ('What shall one

47 Camper, 'Kleur der zwarten', 391.

48 Camper, 'Kleur der zwarten', 394.

49 Camper, 'Kleur der zwarten', 390-391.

say about the colour?').⁵⁰ In all other cases an address forms part of the phrasing. This concerns sentences that start as follows: 'Gylieden vraagt, en met recht, waarom (...)' ('You ask, and rightly so, why (...)') and 'Onderwylen blyft gylieden in het onzekere, en vraagt, kan (...)' ('Meanwhile you remain uncertain, and ask, can (...)').⁵¹

In the continual asking of rhetorical questions, too, Camper attempts to get the audience's attention and move them to provide the implied answer in their thought. An example related to the core of the matter under discussion:

Why should we then on the grounds of colour differentiate [between white and black people], where it only requires a small change in the thin layer, or upper skin, which covers the body?

Waarom zullen wy dan in de kleur verschil maaken, daar zy slegts een kleine verandering vereischt in het fyne vel, of de opperhuid, welke het lighaam omkleedt?⁵²

These rhetorical questions mostly pertain to the consequences that scientific research into the difference in skin colour between Eurasians and Africans must have in terms of the treatment of the latter. Camper was, after all, primarily concerned with the societal impact of his findings. That was the reason that his lecture was public. It presented a case for equal estimation (ethical, religious), if not – in light of slavery – for equal justice for blacks, although he does not say anything about this last issue. Addressing the audience, asking questions (rhetorical or otherwise), therefore, had to do not only with the fact that this text was a lecture, but also with Camper's persuasive intentions. These also explain why he does not shun pathos. The audience, after all, needed to be convinced of the validity of more than just his scientific argument. Camper explicitly indicates the desire to touch his audience emotionally. To this end, for example, he brings up the curse of Cham, who, because of his sin, was said to have been punished by God to have dark skin, and thus became the ancestor of the black race.⁵³ Would the Native Americans, he wonders ironically, who have been treated so 'wreed en barbaarsch' ('cruelly and barbarically') by white people, not think that the colour of the latter is also a punishment from God? This is followed by the remark: 'Deeze uitweiding doet ulieden bloozen, en niet te onrecht' ('This digression makes you blush, and not unjustly').⁵⁴

⁵⁰ Camper, 'Kleur der zwarten', 385.

⁵¹ Camper, 'Kleur der zwarten', 381.

⁵² Camper, 'Kleur der zwarten', 387.

⁵³ Curran, *Anatomy of blackness*, 78.

⁵⁴ Camper, 'Kleur der zwarten', 383.

Symphysiotomy

In three contributions that appeared in the *Vaderlandsche letter-oefeningen* of 1771, 1784, and 1786, Camper presents a case for symphysiotomy: the cutting, during childbirth involving women with severe pelvic narrowing, of the symphysis (the fibrocartilaginous fusion joining both pubic bones). It was meant as an alternative to the life-threatening Caesarean section, or to the craniotomy that would be absolutely fatal to the child, as it involved opening and then completely emptying the contents of the newborn's skull with the intention of reducing its size and making delivery of the now-dead child possible.⁵⁵ The first contribution concerns what the author describes as a *Brief* (Letter) addressed to the Amsterdam surgeon David van Gesscher (1735-1810); the second and third contributions are called *Verhaal* ('Narration'), the former being preceded by a letter, the latter having the form of one. Both are addressed to the editors of the aforementioned periodical.

The first letter, as Camper mentions at the beginning, was written by him in reaction to a letter by Van Gesscher, in which he had gathered a number of doubts articulated by others with regards to Camper's advocacy of symphysiotomy and his proposal to demonstrate the procedure – both the effect (the cutting of the symphysis) and the recovery (the pubic bones reconnecting without a resulting disability) – on the body of a child murderer from Groningen named Siertje Jacobs, who had been condemned to death. With this intention Camper had supported the reprieve requested by her parents from the provincial court in a memorandum in 1770. In exchange for her freedom, Siertje would have to submit to the procedure, where she would naturally run the risk of dying as a result. Aside from the need for and feasibility of the procedure itself, the proposal to test (Camper uses the noun *proef* and the verb *proeven*) it on the body of a condemned woman may have raised eyebrows. Was the measure – 'subject yourself to medical experiment or be executed' – deemed unethical? Or was it, on the contrary, deemed too lenient towards the convict? After all, if she survived, she would regain her freedom. We know from a publication from 1774 that Camper generally deplored the fate of unmarried mothers who out of despair had killed their newborn children and that he was against the death penalty in such cases.⁵⁶ The reservations, we may surmise from reading between the lines, may also have been related to his scientific integrity. Was it questioned whether his proposal was motivated more by personal reputation than by public health?

⁵⁵ On Camper's dealing with this topic, see also Nuyens, *Petri Camperi itinera*, xlii-xlviii; Van der Korst, *Het rusteloze bestaan*, 117-122. On symphysiotomy in this period, see De Feyfer, 'Ter inleiding'.

⁵⁶ Van der Korst, *Het rusteloze bestaan*, 139-143.

In any case, it could be said that Camper's effort was high on all three levels formulated by Gunnarsson. He had to convince his audience of, first, the correctness of the medical (anatomical and obstetrical) insights providing the basis for symphysiotomy; second, of the acceptability of his proposal to test that procedure on a living woman, *in casu* a child murderer who had been condemned to death; third, the correctness of his decision to support the reprieve with this goal in mind; and, fourth, the sincerity of all of his actions regarding this matter. While the first point lies mostly at the cognitive level, the other points mostly address the social and societal levels. That Camper's stakes were this high had to do with the fact that the reprieve for Siertje Jacobs, despite his support, had been rejected by Stadtholder Prince William v (1748-1806) on the advice of the magistrates. This had brought into question not simply the test of a procedure on someone condemned to death, but also the performance of such an experiment in and of itself, that is, its procedure and scientific basis. Camper's reputation had suffered a blow.

The form of a letter offered him the possibility to freely refute the uttered reservations, barely restrained by any convention regarding form or content.⁵⁷ Letters could be about anything and could incorporate other types of texts in turn. For example, he included a verbatim copy of another letter as well as the aforementioned memorandum. Furthermore, the argument increasingly takes the shape of a scientific treatise as the letter goes on, including literature references in footnotes. A vital part of that treatise is formed by the report of a series of tests, including the mentioning of time, place, and circumstance, which partly lends a narrative element to this section of the text. Relating events of various nature is also typical of the letter form. The difference with other narrative genres is that the letter carries an air of truth and authenticity.

In principle, letters are documents that are actually written and sent between existing people. When, as in the current case, sender and receiver are not antagonists and the relationship between both is, if not amicable, then certainly collegial, the letter form suggests that the sender is sincere and reliable, and that the receiver will judge the content of his missive as such. This suggestion is reinforced when the latter is a respected physician, who, like no other, should be able to judge the person and case of the sender based on their merits. Additionally, sender and receiver are allowing, as it were, the readership of the *Vaderlandsche letter-oefeningen* to share in their collegial confidence. What is actually private is made public with the apparent permission of both. The letter form seems to be intended, or at least has the effect, to predispose its readers towards the person and case of the sender. Whether this text was an actual letter that had been sent and afterwards published, or whether it was a publication to which only the form

57 Ramakers, 'Staging nature', 335-339.

of a letter was given (the latter is still the most plausible option), makes no difference in terms of that intention or effect. By publishing it, the editors of the *Vaderlandsche letter-oefeningen* authorised its content and asserted its truthfulness.

After having summarised the reasons for his writing, Camper addresses the objections and their acceptability in general. He takes a very benevolent stance in this. While he notes that some points of criticism were formulated ‘niet geheel en al zonder drift’ (‘not entirely without anger’),⁵⁸ he takes this as an indication of how strongly people would like to see these points clarified. He even stands up for his criticsasters. Van Gesscher might have shown himself to be surprised that his proposal was deemed preposterous; Camper himself understands this very well. After all, had the members of the Académie Royale de Chirurgie in Paris not been sceptical about the procedure ‘in het begin’ (‘at the beginning’) as well? With this formulation he anticipates what will become evident later on, namely that the positions within that learned society had been shifting of late. He then cannot resist remarking that novelty leads to prejudice, which is stronger if there is envy – ‘de gezellinne van verdiensten’ (‘the companion of merit’) – in play,⁵⁹ thus criticising his defamers.

Camper subsequently introduces his substantive argument by supposing that Van Gesscher, who had been only partly aware of Camper’s actions, wanted to be informed about the case ‘van naby en in het breedte’ (‘both closely and broadly’). He will, he says, primarily be able to ascertain

that my attempts, although not yet successful, are nevertheless of the utmost importance, for the human race in general, and for our women and children in particular.

dat myne poogingen, ofschoon als nog niet geslaagd, echter van het uiterste gewigt zyn, zoo voor het menschelyck geslacht in het algemeen, als voor onze Vrouwen en Kinderen in het byzonder.⁶⁰

Beyond that – and here the attention gradually shifts from the case itself to the person of the author – it is the case

that his Serene Highness, our Stadtholder, who forever guards the well-being of the happy inhabitants of the Netherlands, has been willing to witness my presentation [of matters] in a most true fashion.

dat zyne Doorluchtigste Hoogheid, onze Erfstadhouder, altoos waakzaam voor het welzyn der gelukkige Inwoonders van Nederland, myne voorstelling op de allerheuschste wyze heeft gelieven te beschouwen.⁶¹

58 Camper, ‘Brief’, 387.

59 Camper, ‘Brief’, 387.

60 Camper, ‘Brief’, 387.

61 Camper, ‘Brief’, 387.

After this, he starts on the content of his thesis, barely referring to his critics and their objections. From this moment onwards, a page and a half after opening, Camper himself and his insights and work regarding symphysiotomy are central. His person and performance dominate the rest of the letter. This shows from a high frequency of the personal pronoun 'I', from citing letters addressed to him or documents written by him, from the detailed accounts of tests, and from the supporting of his insights through references to classical and contemporary authorities. He is not averse to sentiment in doing so, or to its typographical expression in the shape of question and exclamation marks.

Camper brings to bear his 25 years of experience as an obstetrician, which have taught him that women in the Republic have a hard time during labour and that this difficulty is increasing. That assertion leads the way to a short medical-anthropological treatise. In it, he makes a comparison with neighbouring countries and more remote regions and continents (Arabia, Africa, America), where childbirth is much less problematic. In this context he cites *The natural history of Aleppo* (1756) by Alexander Russell (c. 1715-1768) – the first of a long series of bibliographical references. He also refers to the Bible (Ex. 1:19).⁶² Apart from climatologic factors, he points to cultural customs, such as the wearing of a bodice that constricts the pelvic area, which caused pelvic narrowing to occur more frequently with Western women. Next, the focus shifts to actual obstetric practice in the Republic. As a result of the invention of Smellie's forceps (named after its inventor, William Smellie [1697-1763]) and Roonhuysen's lever (named after its inventor, Hendrik van Roonhuysen [c. 1625-1672]), the number of stillborn babies as a result of the use of craniotomy and the hook had decreased. But there were cases in which they did not provide a solution, and in these cases the use of a hook or Caesarean section would be necessary. He had already explained how 'verschrikkelijk en allergevaarlijkst (...) voor de Moeder' ('horrible and highly dangerous (...) for the Mother') this is in his treatises accompanying the second edition of *Les maladies des femmes* by François Mauriceau (1637-1709).⁶³

In fear of situations where the aforementioned instruments offered no alternatives, he had started to think about a way to assist problematic deliveries without complications. Although he had already highlighted the natural dilatation of the pelvis during a difficult childbirth in his first treatise accompanying the aforementioned translation of Mauriceau, he had never considered

62 'And the midwives said unto Pharaoh, Because the Hebrew women are not as the Egyptian women; for they are lively, and are delivered ere the midwives come in unto them' (King James Bible).

63 Camper, *Tractaat* (Treatise on the illnesses of pregnant women (...) By François Mauriceau. Translated from the French. Second edition. Extended with some treatises (...) And clarified (...) by Petrus Camper; Meijer, *Race and aesthetics*, 217, no. 5).

accomplishing this effect surgically. That is, not until he received a letter in 1769 from Antoine Louis (1723-1792), the secretary of the Académie Royale de Chirurgie in Paris, whom Camper calls 'mynen waarden vriend' ('my honourable Friend').⁶⁴ He then cites this letter in full, first in French and then, at the behest of his readers, entirely in Dutch. Given what has been said about the letter genre's reputation for truth and veracity, the inclusion of this specimen was clearly intended to strengthen the authority and truthfulness of the letter in which it was contained.

In his letter, Louis writes of a young surgeon who had suggested to the academy that the aforementioned procedure be tested on a woman condemned to death, who, in exchange for a pardon, would have to subject herself to it. Camper writes that he has been 'zeer getroffen' ('very touched') by this thought.⁶⁵ He then indicates what motivated him to pursue the procedure:

Being myself blessed with children, who are already grown, I could have little self-interest in the use of this discovery, if it please God to bless it [with success]. Nothing but the aid to others, the greater good, the well-being of my fellow citizens could make me feel that joy that is particular to those whose heart has been struck with true pity. What else, I ask you, who for twenty years refused every payment, even gifts (with but one exception), for the delivery of women in labour, even from the richest, could I have intended with that delight [of having tested that procedure successfully], but to be of service to others? Assume that the desire for fame had accompanied this, would it then be called reproachable, would it then be called sinful, that I, driven by such praiseworthy ardour, strived to achieve an immortal reputation from having performed one of the greatest services possible in my profession to the human race?

Zelf gezegend zynde met kinderen, die reeds groot zyn, konde ik weinig eigenbelang hebben, in de nutheid van die vinding, indien het God behaagen mogte dezelve te zegenen. Niets dan de hulpe van anderen, het algemeen nut, het welzyn myner Medeburgeren konde my die vreugde doen gevoelen, die zoo eigen is aan de zulken, welker hart getroffen wordt door een waar medelyden. Zedert twintig jaaren alle betaaling, zelfs geschenken, een uitgezonderd, wegens het verlossen van Baarende Vrouwen, ook van de Rykste hebbende van de hand geweest, wat konde ik, bid ik U, beoogen in die verrukking, dan anderen dienst te doen? Tel dat 'er, de dorst naar Roem bykwam, zal men het berispelyk, zal men het zondig stellen, dat ik, door zulk een pryselyken yver gedreeven, streefde naar de onsterfelyken naam van in myn beroep een der grootste diensten aan het menschelyk geslacht gedaan te hebben?⁶⁶

He then describes the application of the procedure on, successively, a dead and a living pig, and on the corpses of an old woman and a woman who had died in childbirth. The reports are very detailed in the sense of not only all the

64 Camper, 'Brief', 390.

65 Camper, 'Brief', 392.

66 Camper, 'Brief', 392.

phases of the procedure being carefully described and motivated and all organs and body parts being explicitly named (mostly by their Latin names, in cursive, with an occasional translation), but they also include the dates and places of the procedures, including the names of two former students who witnessed them.⁶⁷ He does not provide a location for that using the dead pig, but the one using a live pig took place at the country residence of a wealthy butcher. Camper rejoices:

Behold the first experiment performed on a living creature, even on its most delicate part! And a full recovery in eight days' time! In an animal that is unmanageable and loves dirtiness!

Zie daar de eerste proef genoomen op een levendig schepzel, en wel op het tederste! en eene geneezing, volkomen geworden in agt dagen tyds! In een Dier 't welke onhandelbaar is, en de morsigheid bemint!⁶⁸

The symphysiotomies on women took place in the aforementioned anatomical theatre in the vestry of the former *Broerkerk*. Witnesses are not named, but the presence of colleagues, students, and other interested parties could be presumed. The experiment on the deceased mother entailed, among other things, a *proefverlossing* (test delivery),⁶⁹ where a dead foetus was inserted into the uterus of the symphysiotomised body. First, Camper had used a cord around the pelvis to draw the pubic bones together and attempted to pass the foetus through the pelvis with the aid of Roonhuysen's lever, in which he had succeeded only with great difficulty. Then he had removed the cord and had been able to deliver the foetus with both hands and a minimal amount of effort. The procedure performed on the body of the woman who had died in childbirth had been even more successful. In that case, he had delivered the dead foetus, which presumably remained in the body, 'zoo zelfs, dat het met éénen hand geschieden konde!' ('in such a way even that it could be done with one hand!').⁷⁰

All of this serves as an overture to the discussion of the memorandum in which he backs the reprieve of Siertje Jacobs, in order to get her to subject to a symphysiotomy. In this way, the woman who was guilty of the death of one child could contribute to the rescuing of many more. The idea that a condemned person could better contribute to society by serving as a subject on the operating table than by dying on the scaffold was an argument that

67 Wijnoldus Munniks (1744-1806), who in 1770 became a professor of medicine at the University of Groningen, and Christiaan Allardi (1747-1822), who in 1797 became a professor of medicine at the University of Franeker.

68 Camper, 'Brief', 394.

69 Camper, 'Brief', 395.

70 Camper, 'Brief', 396.

Camper derived from Diderot,⁷¹ whom he mentions by name, including a reference to his *Encyclopédie*. The memorandum itself is a passionately worded plea. After all, what happens if the obstetrician, faced with a wedged head, not knowing whether the child is still alive, wants to avoid using the hook and is unwilling to perform a Caesarean section due to the risks involved? Camper sketches a gripping image:

Then the unhappy mother dies, after having been tortured for many hours, even days, for nothing, with a full body, and becomes the tomb of her child! While the husband left behind, often father of multiple children, loses his precious other half along with her gift, and, after having witnessed so many awful attacks of pain, grief, anguish, disappointed expectation, and despair, find himself with his children, robbed of a tender mother, submerged in deep mourning.

Zoo sterft de ongelukkige Moeder, naa veel uuren, zelfs dagen agter een, vergeefs sch gepynigd te zyn, met het volle lighaam, en wordt het Graf van haar kind! Terwyl de overblyvende Man, dikwyls Vader van meerdere kinderen, zyne dierbaare wederhelft met hare Vrucht verliest, en, naa zoo veele akelige toevallen met pyn, smert, benaauwdheid, van te leur gestelde verwagting en wanhoop gezien te hebben, zig met zyne kinderen, van eene tedere Moeder beroofd, in de uiterste rouwe gedompeld vindt.⁷²

A passage like this confirms the view by Mary Mulvey Roberts and Roy Porter ‘that empathy with the experiences of another – sufferer or patient – which in literature is so fundamental to the relationship between reader and writer, was not as alien to the eighteenth-century practitioner of medicine as it might appear to be for some of their modern-day equivalents’.⁷³

Although the procedure had never been performed on the body of a living woman, Camper asserts that it had at least been repeatedly established post-mortem that the pubic bones had been separated naturally during pregnancy and childbirth. From this point onwards, the argument becomes more learned and the bibliographical references increase in number. He refers to findings of classical authorities like Hippocrates, but also to insights of numerous (near) contemporaries: physicians, in particular authors on obstetrics, of whom always only the last name is given, printed in small capitals, accompanied by a reference (through the use of a letter) to a footnote where the abbreviated titles of their publications are italicised, including a reference to volumes, sections, and pages (fig. 6).⁷⁴

⁷¹ *Encyclopédie*, vol. 1, 410; Camper, ‘Brief’, 397. The two had met in 1773: Curran, *Anatomy of blackness*, 13.

⁷² Camper, ‘Brief’, 399.

⁷³ Roberts & Porter, ‘Introduction’, 2.

⁷⁴ After having mentioned Alexander Russell, William Smellie, Hendrik van Roonhuysen, François Mauriceau, Antoine Louis, and Denis Diderot in the previous part, Camper now refers to Am-

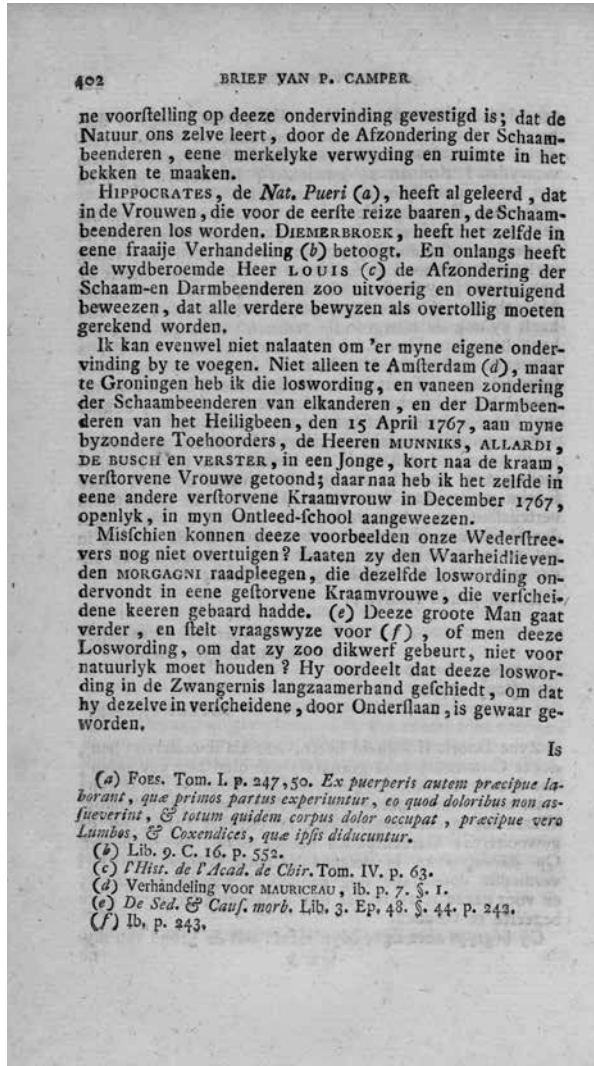


Fig. 6 Camper, 'Brief',
402. Groningen, University of Groningen Library.
Image © University of Groningen Library.

broise Paré (1510-1590), Fabricius ab Aquapendente (1537-1619), Jacques Guillemeau (1550-1613), Severinus Pinaeus (c. 1550-1619), William Harvey (1578-1657), IJsbrand van Diemerbroek (1609-1674), Hendrik van Deventer (1651-1724), Guillaume Mauquest de La Motte (1655-1737), Giovanni Battista Morgagni (1682-1771), Gerard van Swieten (1700-1772), Albrecht von Haller (1708-1777), Fielding Ould (1710-1789), Paulus de Wind (1714-1771), Jacob van der Haar (1717-1799), John Hunter (1728-1793), and Edmund Chapman (dates unknown).

In survey of all of this we can ascertain that the cognitive, the social, and the societal levels are all three addressed equally in the letter. While the cognitive level is constituted by the detailed description of the tests and the argumentation of their conclusions through observations described in scientific literature, the social level is comprised of the letter itself and the occasion for writing it, which cause Camper himself, his motivation, and his integrity as a researcher to come strongly into focus. The societal level is given with the topic itself: an obstetric procedure meant to prevent the death of mother and/or child during childbirth – a fearsome image for every mother-to-be and her surroundings. It is again primarily at this level that we must place his stylistic approach.

In 1784, thirteen years after his *Brief*, Camper published what he called a *Verhaal* (Narration) in the *Vaderlandsche letter-oefeningen* by the Hague obstetrician J.C. Damen (1750-1804), who had successfully performed a symphysiotomy on the wife of a Hague silversmith's journeyman. Two years later, in 1786, he published in the same periodical another *Verhaal* by Damen, shorter this time, about the same procedure on the same woman, which again had the desired effect. Without evidence to the contrary, we must assume that both pieces are entirely by Damen's hand. Yet it is not unthinkable that Camper took the liberty of heightening them, formulating them more grippingly, primarily the former. The descriptions in that piece of two prior deliveries with unhappy outcomes – Damen had had to resort to craniotomy and delivering the newborns with the hook – and of the third delivery that was a success because of the symphysiotomy, all read like a suspense story. They do not simply contain a matter-of-fact representation of events. Thoughts and feelings are represented, too.

The second 'Narration' is worded more factually. Perhaps this happened because doubts had been articulated about the authenticity of the events. For this purpose Camper had added a notarised statement meant to remove any suspicion. It may be that the literary rendering of the first account had been detrimental to its believability. In any case, Camper was aware that the representation might unsettle female readers. He writes:

As these *Literary Exercises* are read tastefully and fruitfully not only by men, but also by many of our astute women, who, when they, contrary to their expectations, should read about the mishaps that could befall their sex, would not wholly without reason fear being submitted to such bitter hardships, and would additionally fear becoming a mother, equally as though childbirth is often accompanied with these sorts of terrible hazards, so I have judged it necessary to add here as a preface (...).

Aangezien deeze Letteroefeningen, niet alleen door Mannen, maar ook door veele van onzen schrandere Vrouwen, met smaak en vrugt geleezen worden, die, tegens haare

verwagting, de ongelukken voor haar geslacht bestemd, leezende, niet zonder rede verschrikken zouden aan zulke bittere moeijelykheden onderhevig te zyn, en teffens vreezen zouden om Moeders te worden, even al of het kraambedde, met dergelyke schroomelyke toevallen, zeer dikwyls verzeld wierdt; zo heb ik nodig geoordeeld, hier vooraf by te moeten voegen (...).⁷⁵

And then there follows a reference to an article by his own hand in the *Mémoires* of the Académie de Chirurgie, in which he reports that in Amsterdam only 175 deliveries followed an unnatural course; and to an article by an English colleague in the *Transactions* that contains equally reassuring statistics for London.

The best form of shoe

In his ‘Letter’ on symphysiotomy, Camper refers to the illustrations that he had fashioned for Smellie’s *A sett of anatomical tables, with explanations, and an abridgment, of the practice of midwifery* from 1754. He had drawn, among other things, the application of the hook developed by Smellie. ‘Het was’, he writes, ‘myne vinding die in het profil te verbeelden’ (‘It was my invention to represent it in profile’).⁷⁶ Camper’s artistic talent has been regularly referenced in scholarly literature, just like his thoughts on beauty and art (including in the present collection). In his contributions on symphysiotomy he describes surgery as a *Konst* and the procedure itself as a *Konstbewaterking*.⁷⁷ The term *Konst* has the simultaneous connotations of ‘science’ and of ‘skill’, also in the artistic sense. The word *Konstbewaterking* in this context means something like ‘skilful’ or ‘artful application’, ‘operation’, or ‘procedure’. That he saw himself as a surgical artist does not seem far-fetched, both where it concerns his own application of surgical procedures and in his ability to represent them as images. Drawings or engravings by his hand of a symphysiotomy are not known, but his medical illustrations, especially the anatomical, are (generally speaking) extremely precisely and skilfully fashioned, also in the artistic sense. It could be said that he attempted to incorporate both the *belles-lettres* and the *beaux-arts* in his publications, for the same reason that is mentioned in the quotation from the *Encyclopédie* at the start of this chapter.

A full-page illustration consisting of nine drawings, four of which show the foot joint in various positions or movements, graces the final page of Camper’s

75 Camper, ‘Verhaal van de konstbewaterking’, 469.

76 Camper, ‘Brief’, 407. Also see Andrew Cunningham’s chapter in this volume.

77 Camper, ‘Brief’, 407, 399-400.

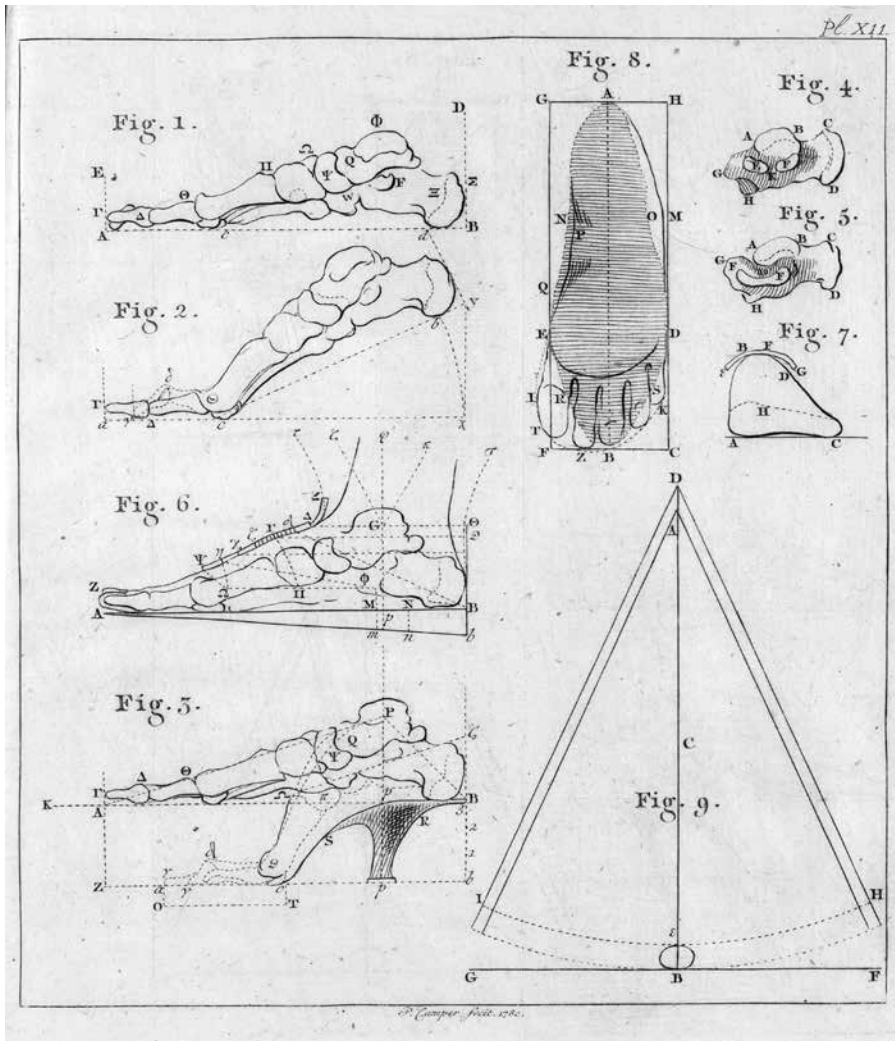


Fig. 7 Camper, 'Verhandeling', Plate XII. Groningen, University of Groningen Library. Image © University of Groningen Library.

article on the best form of shoe in the *Genees-, Natuur- en Huishoud-kundig cabinet* (fig. 7). As noted, this concerned a real *Verhandeling* (Transaction) in a journal that may be described as scientific. It could have been forgivable to see it as a parody, as Camper wrote it on the occasion of a bet with students that he could present a scientific argumentation even on a trivial subject such

as this one.⁷⁸ But it turns out to be an extremely serious topic – podiatric ailments or, more broadly, the pathology of the loco-motor system – on which he then also writes in an extremely serious manner. What now appears strange to us is that Camper combines his orthopaedic arguments, which are based on the anatomy of the foot and the biomechanics of walking, with insights – on the basis of ‘oplettendheid en de dagelijksche ondervinding’ (‘observation and daily experience’)⁷⁹ – regarding the nature of urban pavement, the practice of shoemaking, and the fashion whims of women and girls. Perhaps contemporary readers, both male and female, experienced this entertaining tension as well. In any case, this treatise also evidences Camper’s literary capacities.

It is quite possible that he emphatically fashioned this piece as a scientific article based on a desire to write a real treatise. He achieves this primarily through layout and typography (fig. 8). For example, the text is divided into an introduction and seven *Hoofddelen* (Chapters), each with a description of content, which are listed in a table at the end. They stand out because they are centred and printed in large capitals. The descriptions of content below are also centred and italicised. Consecutively, they discuss the foot, the foot joint, the ball of the foot, movement in general, the characteristics of the shoe, the ideal shape for the shoe, and, finally, podiatric ailments resulting from bad shoes and their treatment. The chapters are then divided into sections, numbered with Roman numerals. Camper employs all of these elements in other scientific treatises as well. Furthermore, proper names are again printed in small capitals. Footnotes, on the other hand, are scarce, but this is because the author includes all literature references (save for two) in the body of the text. By even adding an illustration at the end – something he also did frequently – this article seems to be a scientific treatise by the book.

Had this been a parody, we would have encountered more or less strong incongruence, digressions, and exaggerations in the argumentation and formulation, which at any time would have given us the feeling that the author was not being serious. But that is not the case. Insofar as there is irony, it is mild, such as the remark at the beginning where he states that he has often been surprised that people have been slaving away for centuries trying to take good care of the feet of their beasts of burden, but neglect those they have themselves. Neither does the fact that Camper places a quotation above the text – something that happened primarily in spectatorial contributions – form a counter-indication. It reads: ‘Non multum abfuit, quin Sutrinum quoque inventum Sapien-tibus disceret Posidonius’ (‘Posidonius came very near declaring that even the

78 Van der Korst, *Het rusteloze bestaan*, 186.

79 Camper, ‘Den besten schoen’, 276.



Fig. 7 Camper, 'Verhandeling', 292. Groningen, University of Groningen Library. Image © University of Groningen Library.

cobbler's trade was the discovery of the wise man').⁸⁰ This seems to serve as a defence for his decision to write a *truly* scientific treatise on the fashioning of good shoes. It was a subject that a learned man need not be snobbish about; this had been said by Posidonius (Seneca's tutor) in so many words.

That this defence was unnecessary had everything to do with the fact that most shoemakers and the public in general had little or no knowledge regard-

⁸⁰ Seneca, *Ad Lucilium*, vol. 2, 412-413 (XC.23); Camper, 'Verhandeling', 275.

ing the anatomy of the foot and the biomechanics of walking, and the fact that, as a result of this, shoes were routinely fitted incorrectly (no distinction was made, for example, between a left and a right boot tree), and especially fashion-sensitive wearers of shoes developed all manner of complaints.⁸¹ Camper then launches his substantial argument on the basis of those anatomical, biomechanical, and medical aspects. Especially on the movement of the foot and the role played in this movement by various parts of the foot joint, it turns out that he could educate even his colleagues. His treatment of this subject, including his careful reference through Greek and Roman letters to parts and positions of the foot as represented in the drawings at the end, displays a considerable anatomical, but also kinetic and mathematical knowledge. Coincidentally, where it concerns the representation of the anatomy of a foot, Camper compares his observations not just to those of other scientists – both contemporary and historical – but also to those of artists.

If we attempt once more to determine what the ratio is between the cognitive, the social, and the societal levels for this publication, then the following draws our attention. It is obvious that, since he seems to be primarily preoccupied with emphasising the scientific nature of his insights and his report of them, Camper opts for a form, language, and style that predominantly match the cognitive level. He was chiefly concerned with the communication of knowledge *per se* as regards the medical-biological aspects of his topic. Naturally that knowledge had societal relevance, but in this case that was not his main concern. Even though he wanted to make a contribution to the improvement of shoes, the urgency of paediatric ailments was somewhat less severe than that of infant or maternal mortality or the unequal treatment of black and white people. This is also evident in the sober, non-emotional tone in which the argument is presented, with only a few sentences ending with a question or exclamation mark. On the social level, too, the difference with the other two texts is noticeable. It may be true that Camper himself comes into focus every now and then, but he does so more as an observer and field expert regarding the wearing and ordering of shoes than as a scientist. The personal pronoun ‘I’ only rarely appears in this *Verhandeling*. In this sense, it holds the middle ground between the *Redevoering* and the *Brief*.

Conclusion

Petrus Camper was eager to demonstrate his knowledge, expertise, and skill in the various academic disciplines he practised to a larger audience than just stu-

81 Thomann, ‘Die Grenzen medizinischer Volksbelehrung’, 259-262.

dents and colleagues. He did so both in speaking and in writing. He showed himself to be very aware – consciously or unconsciously – of the three levels of Gunnarsson’s ‘textually created scientificity’ and used all literary means available to achieve the audience effects related to each. Undoubtedly he thought that the fruits of science were there to be used for the good of mankind. It is not, however, too far-fetched to suppose that he was equally motivated in his publication behaviour by a certain amount of vanity. He knew very well that he was not just a very *knowledgeable* man, but also a very *eloquent* one. Both characteristics earned him respect and admiration. Therefore, the assessment of Camper’s scientific and wider cultural and historical significance should not make us lose sight of his qualities as an author and as a speaker, even as a performer. They essentially contributed to his establishment and his reputation as a public scientist.

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'A meteor of spirit, science, talent and activity' – thus Goethe described Petrus Camper (1722-1789). Goethe's words contain all the elements that make Camper such a fascinating figure in the history of science and the arts in the eighteenth-century Dutch Republic. This volume sheds new light on Camper's versatility, engagement, and charisma in all fields and disciplines he ventured into and published on. It not only addresses his scientific activities, findings, and opinions, but also delves into his careers at the universities of Franeker, Amsterdam, and Groningen, his travels, relationships, friendships, and feuds, as well as the ways he communicated his wide-ranging research. Eleven case studies illustrate Camper's views on eighteenth-century life and society, which motivated not just his scientific, but also his political, societal, literary, and artistic practice. Together they amount to a plea for an integration of all aspects of his scholarly life and persona.



VERHANDELING OVER DEN BESTEN SCHOEN,

door den Heer

PETRUS CAMPER.

*Non multum abfuit, quin Sutrinum quoque inventum a
Sapientibus disceret Posidonius.*

SENECA.

I N L E I D I N G.

