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## **Muck, mummies and medicine: disgust in early modern science**

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### **Muck, Mummies and Medicine: Disgust in Early Modern Science\***

Tons of bones, millions of skulls and preserved samples of practically every part of the human body — in cases, jars and custom-made receptacles, these testaments to human mortality line the walls of exhibition halls and fill dozens of storage cellars in Europe’s anthropological and anatomical museum collections. Most visitors’ reactions to these objects are distinctly negative: they evoke feelings of horror, outrage and disgust. For others, reactions are still more personal: indigenous peoples, especially in Australia and Africa, are seeking the restitution of human remains taken from their homelands, often by force and without legal basis. These calls are gaining strength and give voice to feelings of grief, retribution, belonging, remembrance and identity. Here, the bones become markers of a difficult and problematic history that provokes intense feelings of loss and anger.

Nevertheless, museums are — barring some important exceptions<sup>1</sup> — often reluctant to investigate the origins of their collections. Besides interests to keep these historical collections intact for the purposes of scientific research, poor record-keeping makes it frequently very difficult to identify the origins of particular objects in the collections in order to respond to any claims. Yet, underlying these practical concerns, more often than not we find another emotional response: collection holders are remarkably proud of the objects in their keeping, despite the problematic heritage they represent.

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<sup>1</sup> For example, the return of human remains to Namibia, Australia and Paraguay as part of the Berlin Charité Human Remains Project, [https://anatomie.charite.de/ueber\\_den\\_faecherverbund/human\\_remains\\_projekt/](https://anatomie.charite.de/ueber_den_faecherverbund/human_remains_projekt/), accessed January 17, 2019. For returns from UK museums, see Tiffany Jenkins, *Contesting Human Remains in Museum Collections: The Crisis of Cultural Authority* (New York: Routledge, 2011). For the Guidelines of the UK Department for Digital, Culture, Media & Sport, see the summaries of the Museums Association at <https://www.museumsassociation.org/campaigns/8125>, accessed January 17, 2019. The topic overlaps with the broadly discussed question of looted art and other colonial objects in European and American museums, see for example and for further references Rebekka Habermas, ‘Benin Bronzen im Kaiserreich – oder warum koloniale Objekte soviel Ärger machen’, *Historische Anthropologie* 25, no. 3 (2017), 327–352.

These different reactions — of the public, the descendants, and the curators — exemplify two aspects of how people relate to corpses and human body parts. Firstly, these are responses characterized by a very high density of intense emotions. We often assume that specific emotional reactions towards bodily matter are somewhat obvious, natural and inevitable. However — and this leads us to the second aspect — even the few examples highlighted in the previous paragraph reveal the range of possible reactions to this material. While their intensity may be similar, these emotions are not always the same. They differ according to the situation in which the contact between a person and the bodily matter takes place and, as I will show throughout this article, they also change over time. Objects, emotions, situations and historical change are intertwined in complex ways. As much as emotions like disgust tend to ‘stick’ to certain objects, as Sara Ahmed argues, this stickiness is not severed from temporal or cultural contexts and always involves the intervention of human action and the influence of changing settings.<sup>2</sup>

This article explores some of these settings with a focus on the early modern age — an age in which the paradoxical emotion of disgust underwent profound changes. Together with (if emotionally distanced from) our early modern protagonists, we will encounter mummies, explore the early modern practice of swallowing excrement for its health benefits, and (perhaps) become disgusted by anatomical dissections and enlightened skull collectors. These episodes will challenge our perceptions, not only regarding the interrelations of scientific research and emotional regimes of the past, but also of how far experiences and understandings of the body and of disgust have been shaped by early modern developments. Before we begin, however, we must first address some historiographical issues and key definitions.

### ***1. Bodily Matter and the History of Disgust***

In the following pages, I will focus on an emotion intimately connected to bodily matter: disgust. Disgust is familiar to all of us, but it has proven remarkably difficult to comprehensively define and understand it; moreover, although there have been many theoretical investigations of this emotion in recent years, its history, especially during the early modern period, remains remarkably under-researched.<sup>3</sup> Instead of trying to explain how disgust

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<sup>2</sup> Sara Ahmed, *The Cultural Politics of Emotion* (New York: Routledge, 2004), 89–92; Sara Ahmed, ‘Affective Economies,’ *Social Text* 79 22, no. 2 (2004), 117–39.

<sup>3</sup> There are only a few exceptions which deal with disgust in the early modern age, but mainly in English Studies and thus focusing on philological and literary aspects: Benedict Robinson, ‘Disgust c. 1600,’

has changed over time and what this might tell us about past societies, the existing literature mainly focuses on the reasons why, in general, humans feel disgust. It tries to explain the experience of a usually sudden and very strong sense of revulsion in response to certain objects, normally expressed in an overwhelming need to get away from them. The explanations range from Mary Douglas's famous definition of dirt as 'matter out of place',<sup>4</sup> to ideas about contagion,<sup>5</sup> and on to arguments about disgust as marking processes of boundary crossings and issues of identity, othering and self-definition (most forcefully expressed in Julia Kristeva's theory of the abject).<sup>6</sup>

Disgust theorists have also tried to identify and categorize those objects which evoke disgust in most people. The great majority of these disgusting objects are said to be closely connected with the body, be they bodily fluids and excretions, orifices, or, most powerfully affective of all, severed body parts. As Winfried Menninghaus puts it, the human corpse is '*the emblem*'<sup>7</sup> of disgust. Or, in William Miller's words, all disgusting objects are somehow connected to 'life soup', the 'roiling stuff of eating, defecation, fornication, generation, death, rot and regeneration'.<sup>8</sup>

The widely accepted idea of a modern 'deodorization' and sanitation process still influences the understanding of premodern societies intensively, bringing about the idea that premodern people, because of the supposed ubiquity of death, decay, body parts, stink etc., were less likely to be disgusted.<sup>9</sup> As convincing and intriguing the narrative of an, in comparison, unsanitized, dirty and smelly age might seem at first, it heavily relies on obscuring and ultimately even denying the fundamental reality that early modern people were indeed very

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*English Literary History* 81, no. 2 (2014), 553–83; Stephen Greenblatt, 'Filthy Rites,' *Daedalus* 111, no. 3 (1982), 1–16; Natalie K. Eschenbaum and Barbara Correll, ed., *Disgust in Early Modern English Literature* (London and New York: Routledge, 2016).

<sup>4</sup> Mary Douglas, *Purity and Danger: An Analysis of the Concepts of Pollution and Taboo*, with a new preface by the author (London: Routledge, 2002).

<sup>5</sup> See, among many others, Paul Rozin and April E. Fallon, 'A Perspective on Disgust,' *Psychological Review* 94, no. 1 (1987), 23–41.

<sup>6</sup> Julia Kristeva, *Pouvoirs de l'horreur: Essai sur l'abjection* (Paris: Éditions du Seuil, 1980); Ahmed, *Cultural Politics*, 82–100; Susan B. Miller, *Disgust: The Gatekeeper Emotion* (Hillsdale: Analytic Press 2004).

<sup>7</sup> Winfried Menninghaus, *Disgust: Theory and History of a Strong Sensation*, trans. Howard Eiland and Joel Golb (Albany: SUNY Press, 2003), 1.

<sup>8</sup> William I. Miller, *The Anatomy of Disgust* (Cambridge: Harvard University Press, 1997), 18.

<sup>9</sup> The deodorization narrative was most prominently brought forward by Alain Corbin, *The Foul and the Fragrant: Odor and the French Social Imagination*, transl. Miriam Kochan, Roy Porter and Christopher Prendergast (Leamington Spa: Harvard University Press, 1986). See, for an overview of the historiography of smells, Mark S. R. Jenner, 'Follow Your Nose? Smell, Smelling, and their Histories,' *American Historical Review* 116, no. 2 (2011), 335–51.

much capable of being disgusted and that body parts did evoke disgust among them. Decay, death, putrefaction, bodily fluids, excrement and bad smells were feared and abhorred.<sup>10</sup>

However, the connection between bodies and disgust should not be conceptualized as natural' or timeless absolutes. They still changed over time in, for us, sometimes surprising ways. In the following, I will explore the diverse range of ways in which people experienced and shaped disgust in response to bodily matter, building on recent invitations to connect the history of emotions and the history of objects.<sup>11</sup> In doing so, I will concentrate on the early modern fields of anatomy, medicine and early anthropology. These three interconnected fields represented not only some of the most dynamic and leading areas of science in the early modern age, but they were also the most intimately connected with the human body. By exploring these fields in a series of telling snapshots, we will encounter situations in which early modern actors were surprisingly successful at using the disgust provoked by body parts for their own social purposes, situations in which disgust took on positive side affects, and, finally, situations in which body parts would become emotionally disturbing as disgust lost its productive side and was increasingly shunned in light of burgeoning eighteenth-century ideas of beauty and progress. By digging into multiple case studies in a chronological fashion, taking in the world of dissected corpses, excrement, mummies and human skulls from the sixteenth to the late eighteenth centuries, I will propose a new narrative for the changing role of disgust in early modern science which moves beyond simplistic notions of a premodern civilizational absence of the emotion and instead presents the complexities of the emotion and its history.

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<sup>10</sup> On the significant influence of bad smells, see Carlo M. Cipolla, *Miasmas and Disease: Public Health and the Environment in the Pre-Industrial Age*, trans. Elizabeth Potter (New Haven and London: Yale University Press, 1992); Annick Le Guérer, *Scent: The Mysterious and Essential Powers of Smell*, trans. Richard Miller (London: Chatto and Windus, 1993).

<sup>11</sup> Barbara Rosenwein, 'Emotions and Material Culture: A "Site Under Construction",' in *Emotions and Material Culture*, ed. Gerhard Jaritz (Wien: Österreichische Akademie der Wissenschaften, 2003); Stephanie Downes, Sally Holloway and Sarah Randles, *Feeling Things: Objects and Emotions through History* (Oxford: Oxford University Press, 2018); Jacqueline van Gent and Raisa Maria Tovio, 'Gender, Material Culture and Emotions,' Special Issue, *Scandinavian Journal of History* 41, no. 1 (2016).

## 2. Disgust's Attraction. Anatomists and Bodily Matter

Interest in the interior of the human body and the practice of anatomy exploded in the sixteenth century. Starting in Italy, dissections were soon taking place all over Europe; anatomical theatres regularly drew large audiences and anatomical publications boomed.<sup>12</sup>

This development definitely started before Andreas Vesalius, a young anatomist with exceptional skills in self-promotion and a knack for attracting an audience, strode onto the anatomical stage of early modern Europe, but, in the history of anatomy, the charismatic Vesalius remains an inescapable and compelling figure. For later anatomists, his famous *De humani corporis fabrica*, printed in 1543, would be a cardinal reference point.<sup>13</sup> In the dedication of this work, Vesalius addressed disgust briefly but not without emphasis. To him, people who were too 'delicate' could not be anatomists or medical doctors.<sup>14</sup> Being too delicate meant having the kind of constitution that would be a serious handicap in these professions.

Yet delicateness, which revealed itself in disgusted reactions towards bodily matter, was not an insurmountable handicap, as the life of the doctor and anatomist Felix Platter exemplifies. Platter wrote an autobiography of his early career, beginning with his childhood and ending with the near simultaneous award of his doctorate, and his wedding. He completed it shortly before his death in 1614, after 40 years as the city physician of Basel, professor of practical medicine, and as the author of numerous books on medicine and anatomy.<sup>15</sup> A central narrative of Platter's life story was his journey to overcoming his disgust. As a child and juvenile, Platter repeatedly described himself as being remarkably delicate,<sup>16</sup> but he did so in

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<sup>12</sup> On anatomy in the sixteenth century, see Jonathan Sawday, *The Body Emblazoned: Dissection and the Human Body in Renaissance Culture* (London: Routledge, 1996); Andrea Carlino, *Books of the Body: Anatomical Ritual and Renaissance Learning* (Chicago: University of Chicago Press, 1999); Paula Findlen, 'Anatomy Theaters, Botanical Gardens and Natural History Collections,' in *The Cambridge History of Science. vol. 3. Early Modern Science*, ed. Lorraine Daston and Katharine Park (Cambridge: Cambridge University Press, 2008); Katharine Park, *Secrets of Women: Gender, Generation and the Origins of Human Dissection* (New York: Zone Books, 2006).

<sup>13</sup> Andreas Vesalius, *De humani corporis fabrica libri septem* (Basel: Johannes Oporin, 1543). Compare the introductions and commentaries in the English edition: Andreas Vesalius, *The Fabric of the Human Body. An Annotated Translation of the 1543 and 1555 Editions of De Humani Corporis Fabrica Libri Septem*, ed. Daniel H. Garrison and Malcolm H. Hast (Basel: Karger, 2014).

<sup>14</sup> Vesalius, *Fabrica*, 4r. See on this and for the general argument of this section Sarah-Maria Schober, *Gesellschaft im Exzess: Mediziner in Basel um 1600*, Frankfurt/M.: Campus, 2019, 299–306.

<sup>15</sup> Felix Platter *Tagebuch (Lebensbeschreibung) 1536–1567*, ed. Valentin Loetscher (Basel and Stuttgart: Schwabe, 1976).

<sup>16</sup> See Ralph Frenken, 'Da fing ich an zu erinnern...' *Die Psychohistorie der Eltern-Kind-Beziehung in den frühesten deutschen Autobiographien (1200–1700)* (Giessen: Psychosozial-Verlag, 2003); Ralph Frenken, *Kindheit und Autobiographie vom 14. bis 17. Jahrhundert: Psychohistorische Rekonstruktionen* (Kiel: Oetker-Voges Verlag, 1999), 499–504.

order to showcase the process of overcoming his disgust and thereby becoming a doctor. Bit by bit, curiosity, eagerness and scientific responsibility triumphed over his seemingly innate disgust. By the time he wrote the dedication of his anatomical work, *De humani corporis structura et usu*, the formation of his anatomical *persona*, which had overcome such personal feelings for the sake of mankind, is complete.<sup>17</sup> But even here, while describing his ‘ardour’, Platter emphasized the horrors, repulsiveness and dangers of anatomy — and thus made sure that his personal process of transcending disgust was both understood and valued by the reader.<sup>18</sup>

Platter’s outspokenness about these matters was very much in keeping with the times: anatomists of the sixteenth century did not seek to omit the emotional reaction to death and decay. Rather, they actively made use of the emotional intensity surrounding the anatomizing of the dead. Overcoming disgust — but not eliminating it — was an ideal means through which to legitimate and promote the necessity and usefulness of their occupation, as Katharine Park underlines in regard to the early modern anatomist’s strategies of self-fashioning: ‘His gratuitous stress on the repugnant, sometimes shocking features of his work allowed him to demonstrate his personal dedication to his subject and to claim special epistemological authority gained from immersing himself in the dirty stuff of nature, body and soul.’<sup>19</sup>

Death, decay and disgust were not denied in sixteenth-century anatomy — they were actively made use of. Anatomists strongly and loudly emphasized that they got their hands dirty by delving deeply into the human body, a body that was widely seen as corrupted flesh, literally filled with worms, fluids and excrement.<sup>20</sup> Putrid smells accompanied days-long dissections as the corpse decomposed quickly in this age before conservation methods allowed a more sanitized process. But rather than being discursively eradicated, in the representation of anatomical practises bad smells were actually used to attract attention.

Early modern anatomists were well aware of the ambivalent nature of disgust being, as various theorists since Plato have argued, simultaneously repulsive and attractive.<sup>21</sup> This

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<sup>17</sup> See, on the concept of the *scientific persona*, Lorraine Daston and H. Otto Sibum, ‘Introduction: Scientific Personae and Their Histories,’ *Science in Context* 16, no. 1/2 (2003), 1–8.

<sup>18</sup> Felix Platter, *De corporis humani structura et usu* (Basel: Ambrosius Froben, 1581–1583), unpaginated dedication.

<sup>19</sup> Park, *Secrets of Women*, 218. On early modern anatomy and disgust, see also Carlino, *Books of the Body*, 156–70, 213–25.

<sup>20</sup> With reference to Pietro Camporesi, see Richard Sugg, *Mummies, Cannibals and Vampires: The History of Corpse Medicine from the Renaissance to the Victorians* (London: Routledge, 2011), 227f.

<sup>21</sup> Plato, *Republic*, iv, 439e–40a (*The Collected Dialogues of Plato*, ed. Edith Hamilton and Huntington Cairns, trans. Paul Shorey (Princeton: Princeton University Press, 1973), 682); Aurel Kolnai, *Ekel, Hochmut, Hass: Zur Phänomenologie feindlicher Gefühle* (Frankfurt/M.: Suhrkamp,

paradox of disgust was not a strange idea to scientists of the sixteenth and seventeenth centuries — it was an everyday experience. They encountered it during dissections and saw it in the fascinated faces of people attending executions. Beyond these particularly vivid settings, they could also notice the ambivalent reactions of early modern people towards a range of disgust-connected luxury objects, such as the highly-valued perfume, medicine and aphrodisiac ambergris.<sup>22</sup> Ambergris is a metabolic product of the sperm-whale, an exotic origin (albeit one hotly contested by the early modern scientists) which made it both highly desired yet simultaneously considered disgusting, foul and excremental. Sophie Read observes:

Ambergris is . . . the physical embodiment of a profound paradox, the joke of a resourceful Nature: it is beauty from the ugly, culture from one of the most remote and inhospitable environments on earth, perfume from shit. Browne, standing by the stinking hulk of his beached Norfolk whale with his copy of Paracelsus in his hand, was prepared to recognize and enjoy the paradox; Boyle, unwilling to be suckered in by the rhetorical neatness of nature, was not.<sup>23</sup>

Using the examples of the different reactions of the scientists, the quotation illuminates the changing perceptions of the ‘paradox of disgust’ — the emotion’s inherent capacity to repulse and fascinate at the same time. For centuries, the productivity of disgust seems to have dominated over straightforwardly negative views. This did not mean that fierce attacks using disgust and moral arguments against certain kinds of bodily material were simply unknown. However, disgust remained at this time sufficiently ambivalent an emotion that scientists and successful merchants could use it effectively to promote their activities, products and even themselves.

### ***3. Making Use of Disgust. Bodily Matter as Medicine***

When it came to instrumentalizing disgust, the most striking examples are to be found in early modern medicines. *Materia medica* was classified into three categories: remedies provided by

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2007), 527f.; Carolyn Korsmeyer, *Savoring Disgust: The Foul and the Fair in Aesthetics* (New York: Oxford University Press, 2011).

<sup>22</sup> See Sarah-Maria Schober, ‘Begehrt und ekelhaft: Ambra in der Frühen Neuzeit’, *Historische Anthropologie* 27, no. 1 (2019), 11–31.

<sup>23</sup> Sophie Read, ‘Ambergris and Early Modern Languages of Scent’, *The Seventeenth Century* 28, no. 2 (2013), 221–37, here 230.



the earth, by plants and by animals. The last category also comprised medicine derived from the human body: blood, skull moss, excrement, mummified flesh and fat were only the most common; practically every part of the human body could be and was used for medicinal purposes. While the connections drawn to magical practices, as well as to cannibalism, were often seen as problematic by practitioners throughout the early modern age, human bodily matter never ceased to be offered by well-meaning physicians and pharmacists, and swallowed knowingly or unknowingly by patients.

In contrast to the existing work on medicinal cannibalism,<sup>24</sup> I argue that human bodily matter was long consumed for medicinal purposes, not due to a lack nor in spite of feelings of disgust connected to the human corpse, but actually *because* of those very feelings. Using body parts and bodily waste as medicine should not be interpreted, as it usually was by disgusted late nineteenth-century commentators, as a sign of a less developed stage in the ‘progress of civilization’, nor as the ‘nasty ideas’ of earlier physicians who sought to prescribe ‘filthy remedies without any further reason than caprice and the desire to be mysterious’.<sup>25</sup> Very much to the contrary, making use of disgust actually made remarkable sense within the frame of early modern medical theories and practices.

For Kristian Franz Paullini, physician, polymath and member of numerous learned societies like the German academy of sciences *Leopoldina*, in his bestselling 1696 treatise on the use of excrement to cure myriad diseases, disgust was central to his argument for why bodily matter was such an effective medicine. His work was rather evocatively named *Heylsame Dreckapotheke (Curative Dirt Apothecary)*,<sup>26</sup> and in it, Paullini was bracingly frank

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<sup>24</sup> See on the topic: Sugg, *Mummies*; Louise Noble, *Medicinal Cannibalism in Early Modern English Literature and Culture* (Basingstoke: Palgrave Macmillan, 2011); Janine Kopp, *Menschenfleisch: Der menschliche Körper als Arzneimittel* (without place of publication, 2014).

<sup>25</sup> Skatological Medicine, *The British Medical Journal* 1, no. 1641 (1892), 1263–64, here 1263. In France, starting from the 1840s there was a considerable medical curiosity in early modern excremental medicine predating these notions which combined an interest in materialism and a holistic view of the body with scatological humour and ridicule, see especially Auguste Veinant, Pierre Jannet, Jean-François Payen, *Bibliotheca scatologica* (Paris: Guiraudet et Jouaust, 1861). The most important works to link coprophagy to civilization narratives and the idea that those are mirrored in the psycho-development in human childhood are John G. Bourke, *Scatological Rites of All Nations* (Washington D. C.: W. H. Lowdermilk & Co., 1891) and several publications of Sigmund Freud. See on this and the Austrian discussion predating Freud in understanding the eating of faeces as a form of psychopathological auto-intoxication Alison M. Moore, ‘Situating the Anal Freud in Nineteenth-Century Imaginaries of Excrement and Colonial Primitivity’, in: Manon Mathias, Alison M. Moore (eds.), *Gut Feeling and Digestive Health in Nineteenth-Century Literature, History and Culture* (New York: Palgrave, 2018), 55–84; Alison M. Moore, ‘Coprophagy in Nineteenth-Century Psychiatry’, *Microbial Ecology in Health and Disease* 29, no. 1 (2018), 1–12.

<sup>26</sup> I am using the following version: Kristian Franz Paullini, *Neu-Vermehrte, Heylsame Dreck-Apotheke* (Frankfurt/M.: Friedrich Knochen, 1699).

about the disgusting side of his treatments: ‘It will disgust people to hear about the stories of eating dirt, but I have to tell them.’<sup>27</sup> Like the anatomists, Paullini used disgust to attract the attention of his readers; at the same time, he pre-emptively defused possible objections to his therapeutic proposals by focusing on the medical productivity of disgust.

Paullini’s work is a very learned and passionate plea for using excrement, human and animal, in medicine. He consistently admits that they are disgusting, but states this is precisely why they are suitable for healing — poisonous illnesses, he argued, should equally be fought off by dirt.<sup>28</sup>

In the *Dreckapotheke*, disgust was even presented to be curative in itself, as a case on severe toothache shows:

I was once called to a seventeen-year-old woman . . . When I came, I formed pills [obviously made of some kind of excrement] to be laid into the tooth cavity. As soon as she saw it, her body started shaking with terrible vomiting and in that moment all aches and pains were gone so that afterwards she threw my pills into the courtyard.<sup>29</sup>

Here, vomiting and nose bleeds worked as effective, disgust-induced purgatives which restored the balance of the body’s humours and flows. As nothing of the excremental medicines was swallowed but only seen, the passage shows that it is the emotion of disgust and its corporeal effects that do the healing.<sup>30</sup>

Rather surprisingly for its genre, the *Dreckapotheke* also takes its focus on excrement as an opportunity for some witty and fierce social criticism aimed at the rich and powerful.

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<sup>27</sup> ‘Es wird zwar einen äckeln / wann er die historien von Dreck fressen hören sol / doch muß ich sie erzählen’, Paullini, *Dreck-Apotheke*, unpaginated preface.

<sup>28</sup> The underlying concept of this argument stems from the ancient doctrine of signatures, which assumes that a cure resembles its ailment, see Friedrich Ohly, *Zur Signaturenlehre der Frühen Neuzeit* (Stuttgart: Hirzel, 1999); Michel Foucault, *The Order of Things: An Archaeology of Human Sciences* (London: Tavistock, 1970), 25–30; and with reference to Paullini, Francis B. Brévar, ‘Between Medicine, Magic, and Religion: Wonder Drugs in German Medico-Pharmaceutical Treatises of the Thirteenth to the Sixteenth Centuries,’ *Speculum* 83, no. 1 (2008), 1–57, here 45–46.

<sup>29</sup> ‘Ich bin einst zu einer siebenzehnjährigen Weibs-Person im Wolfenbüttelischen Lande geruffen worden. Als ich kam formirte ich Pillen / so in die Höhle der Zähne gelegt werden sollten. Sobald sies sähe / fieng der gantze Leib an zu zütern / mit einem schrecklichen Brechen / und in dem Augenblick war alles Weh und Ach dahin / so daß sie meine Pillen hernach in Hoff schmiß.’, Paullini, *Dreck-Apotheke*, 65.

<sup>30</sup> Other reasons for why excrement works as a remedy – for example that God provides them as something accessible to everybody or that they contain besides sulphur, salpeter and salt also ‘living spirit’ – are also explored throughout the treatise, see *ibid.*, unpaginated preface, 106, 163.

Here, at the latest, it becomes clear that Paullini's text cannot and should not be read as evidence of the early modern times' supposed dirtiness, stupidity or lower stage of civilization.<sup>31</sup> Instead, the text shows us how contemporaries could deftly and self-reflexively play on disgust and its mechanisms on different levels.

Already in the introduction, the titular word 'dreck' — signifying 'dirt' in the old word meaning of 'faeces', — is closely associated with the upper classes:

In England, when one person thinks of himself as a span higher than another, he is titled a Lord. The Danes, however, translate that word as dirt in their language. That is well met. Because a Lord's a lord. We are all made of muck and mud, those who clad themselves in crimson as well as those who wear coarse linen.<sup>32</sup>

Written in a strongly Christian context, the passage reminds the reader that all bodies, regardless of social status or wealth, are fundamentally the same and are all composed of dirt and excrement. Paullini's excremental egalitarianism included the clergy and, significantly if unsurprisingly in this age of confessional divide, the pope himself. Paullini, the former theology student from Eisenach, comes up with an innovative theory about the infamous papal 'defecation chair', on which a newly-elected pope had to sit. This chair was generally believed to have been introduced to test and touch the pope's genitals through a hole in its seat following the scandal over the alleged Popess Joan, an explanation which Paullini dismisses as foolish twaddle. Instead, he declares the real reason behind the 'defecation chair' was that it acted as a material reminder of humility and mortality, that no person is somehow superior to others — not even the pope.<sup>33</sup>

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<sup>31</sup> The literature on Paullini is scarce and quite old, which explains the still largely negative assessment of him, e. g. Karl Friedrich Heinrich Marx, *Zur Beurtheilung des Arztes Christian Franz Paullini* (Göttingen: Dieterichsche Buchhandlung, 1872). The following magister thesis provides a more nuanced view of Paullini's work, status and reception: Anne-Christin Lux, 'Die Dreckapotheke des Christian Franz Paullini (1643–1712)' (MA thesis, Johannes Gutenberg-Universität Mainz, 2005). I warmly thank Anne-Christin Lux for giving me access to her work.

<sup>32</sup> 'Wann in Engelland sich einer eine Spanne höher dünckt als der andere / titulirt man ihn Lord. Die Dänen aber verdolmetschen das Wort in ihrer Sprache Dreck. Ist gar wohl getroffen. Dann ein Lord ein Lord. Wir stammen alle von Koth und Leimen her / so wol die so sich in Purpur als groben Linnwad hüllen, Zur Erinnerung dieser dreckichten Herkunft und unflätziger Heimat hat mir beliebt die theuren Schätze und merckwürdige Geheimnisse des Koths etwas tieffer zu untersuchen', Paullini, *Dreck-Apotheke*, unpaginated preface.

<sup>33</sup> Ibid.

Paullini's idea of dirt and death as social levellers is accompanied by his fierce criticism of luxury, for which he once again turns to dirt to support his case.<sup>34</sup> Because excrement is ubiquitous, there is, according to Paullini, no need to import materials from afar and pay exorbitant sums for them. In his introduction, Paullini lambasts ambergris, musk and civet as highly 'expensive dirt' and 'excrement', connecting their usage to the deadly sin of pride. He draws a simple distinction between these and the virtuous local excrements he uses for his remedies by making it very clear that he 'loves everyday dirt, which can be acquired everywhere without money and which is more reliable than what the fraudulent East and West Indies bedaub us with as precious'.<sup>35</sup> Paullini's principal concerns were the high costs of exotica and the power and wealth this gave to their providers.

Paullini, too, instrumentalizes the emotion, actually exploiting its potential on more than one level. His contradictory attitudes towards dirt and his use of disgust to simultaneously argue for the benefits of his medical practices and against the moral corruption of the wealthy was rather utilitarian: although disgust is overwhelmingly presented in a positive light throughout his treatise, he embraces and uses its negative associations when it serves his political and social opinions, informed by his religious outlook. He characterizes the expensive imported dirt as disgusting and frivolous, thereby maligning luxury and wealth in general, making them all dirty. To him, money is nothing more than 'yellow dirt'.<sup>36</sup>

An additional explanation Paullini offers his readers, in line with many other writers of the day, for why disgust caused by luxury is so much worse than the curative disgust of everyday dirty objects, is that luxuries were extremely prone to forgery due to their high price and distant origin.<sup>37</sup> Placed in stark contrast to the honesty of the local and familiar dirt, this provided Paullini with yet another opportunity to exercise his rather outstanding capacity for social critique. He was not merely showboating, however: forgery was indeed a severe and widely-discussed problem at the time, not least with regard to another fascinating example of early modern medicinal cannibalism: *mumia vera*. The intense and slowly changing

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<sup>34</sup> On the early modern luxury debates, see, for example, *Luxury in the Eighteenth Century: Debates, Desires and Delectable Goods*, ed. Maxine Berg and Elizabeth Eger (Basingstoke: Palgrave Macmillan, 2003).

<sup>35</sup> Paullini, *Dreck-Apotheke*, unpaginated preface.

<sup>36</sup> Money and gold were at this time often connected to dirt and disgust: see Greenblatt, 'Filthy Rites,' esp. 10.

<sup>37</sup> This was often the case for highly-prized medicinal substances: see, for example, on bezoar stones, Peter Borschberg, 'The Euro-Asian Trade in Bezoar Stones (approx. 1500 to 1700),' in *Artistic and Cultural Exchanges between Europe and Asia, 1400–1900*, ed. Michael North (Farnham: Ashgate, 2010).

discussions among early modern medical professionals over the medical virtues and moral problems of this matter will in the next section serve not only as another intriguing showcase for the paradox of disgust but also of its starting reversal.

#### **4. Discussing Disgust. Early Modern Mummies**

*Mumia vera* — a crumbly substance made from the bodies of ancient Egyptian mummies — was one of the most highly sought-after types of bodily matter ingested for health purposes since the middle ages. The use of mummies took off in the medical world in the sixteenth century and boomed in the seventeenth, before slowly declining through the eighteenth and being largely forgotten thereafter.

Richard Sugg argues that these shifting economic tides in the medicinal use of mummies can be explained in significant part by changes in the principal emotional response they triggered — a conclusion with which I wholeheartedly agree.<sup>38</sup> But this is not a simple story of people becoming more or less disgusted by this substance. The evidence we find in treatises on the subject across the sixteenth and seventeenth centuries do not suggest there were specific time periods in which this substance did not evoke disgust. In fact, it seems more likely that the material never truly ceased to be disgusting.<sup>39</sup> Leonhart Fuchs, a famous botanist and physician, for instance, described mummified corpses already in 1535 as ‘tabida saniens’, meaning ‘putrid sanious manure’.<sup>40</sup>

As we saw with Paullini’s approach to dirt, the very ‘disgustingness’ of bodily matter could paradoxically add to its understanding as providing health benefits. What changed over time, then, was not the emotion of disgust itself, but how that disgust was interpreted — whether or not it could also be seen as productive.

The people of early modern Europe certainly considered the matter highly effective and it was widely gulped down for medical purposes, including by such illustrious noblemen as Charles II of England and Christian IV of Denmark.<sup>41</sup> The French king Francis I reportedly even had a servant carry a small amount of *mumia vera* wherever the king went, so that it would always be on hand in case of an accident.<sup>42</sup>

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<sup>38</sup> Sugg, *Mummies*.

<sup>39</sup> Here my analysis differs from the existing literature; compare e. g. Guérer, *Scent*, 87–94.

<sup>40</sup> Leonhart Fuchs, *Paradoxorum medicinae libri tres* (Basel: Johannes Bebelius, 1535), 85.

<sup>41</sup> Sugg, *Mummies*, 1.

<sup>42</sup> *Ibid.*, 21; Benno R. Meyer-Hicken, ‘Über die MUMIA genannten Substanzen und ihre Anwendung als Heilmittel’ (PhD diss., University of Kiel, 1978), 51.

Open wounds and heavy bleeding, no matter how severe, were among the most common reasons for using the substance. The German apothecary Christian Hertzog listed further indications as diverse as earaches, poisoning, epilepsy, uterus prolapses and scorpion bites, to name but a few.<sup>43</sup> For many, *mumia vera* was indeed a panacea.

But even authors in favour of using Egyptian mummies in medicine sometimes pointed to the disgusting side of the matter. Some sources stated, for example, that the best *mumia* were the most ill-smelling.<sup>44</sup> Christian Hertzog's argument in favour of using mummies in his 1715 *Mumiographia* can in part be read as an answer to the common objections to the material. To explain why the Egyptians themselves did not use mummies as medicine, Hertzog declared that their physicians were too interested in the good favour of their patients rather than their health. Reading between the lines, one can easily detect a critique directed towards those European doctors who were not prescribing disgusting matter because they were afraid of losing their patients. To counter this, Hertzog emphasized the positive effects of purgations and vomiting, which, as we saw in Paullini's work, were closely connected to disgust. Moreover, Hertzog added a religious argument. Not unlike Paullini, he emphasized that God's gifts should be accepted as remedies irrespective of personal likes or dislikes, especially as the reason for illnesses ultimately lay in sinful behaviour. Precisely because the disgust involved reminded the patient of the sinful origins of his or her illness, Hertzog goes so far as to declare the use of mummies a religious task which would distinguish the German lands as the 'home of pure faith no less than of laudable arts and sciences', in contrast to Egypt's state of Muslim 'devastation'.<sup>45</sup> Thus, by explaining why disgusting material should be used, Hertzog, too, managed to integrate disgust into his argument, rather than denying its existence.

However, *mumia vera* had already started — gradually — to lose its omnipresence in early modern recipe books and apothecaries. This coincided with a shift less in the specific arguments of the anti-mummy critics, but simply in the growing unanimity of the learned discourse arraigned against the use of *mumia vera*. A compilation of pharmaceutical and chemical substances created by the apothecary and professor of chemistry, Caspar Neumann, published in 1749–1755, for example, combined the various disgust-related arguments that were brought forward against the material.<sup>46</sup> Neumann described the medicine gained from

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<sup>43</sup> Christian Hertzog, *Mumiographia Medica: oder Bericht von Egyptischen Mumien* (Gotha: Reyherische Schriften, 1716), 106–8.

<sup>44</sup> Karl H. Dannenfeldt, 'Egyptian Mumia: The Sixteenth Century Experience and Debate,' *The Sixteenth Century Journal* 16, no. 2 (1985), 163–80, 164, 171.

<sup>45</sup> Hertzog, *Mumiographia*, 129.

<sup>46</sup> Caspar Neumann, *Chymie*, vol. 3 (Züllichau: Christoph Heinrich Kessel, 1753), 734–41.

mummies as dead human flesh, desiccated, haggard and putrid, possibly spreading dangerous diseases, as being ‘smeared together’, and disgusting, because of the ways in which the mummies were fabricated by Jews — alluding to the reputed impurity of Jews as well as to their alleged involvement in forgery.<sup>47</sup> Finally, he classified people who used mummies for medicinal purposes as worse cannibals than Indians and indeed more stupid ones, because, in the case of mummies, there was no way of knowing if the person had died of a contagious disease and was therefore anything but a source of healing.

In sum, Neumann described this expensive luxury medicine as ‘highly disgusting, detrimental and harmful’.<sup>48</sup> What Neumann assembled here was not new. Many passages were very similar, for example, to the description of the fabrication of mummies by ‘fraudulent Jews’ penned by Gui de la Fontaine (a French physician who travelled to Egypt in 1564) and published by Ambroise Paré.<sup>49</sup> What is remarkable, however, is that Neumann positioned his critique within a comprehensive pharmaceutical compendium, rather than a single treatise, and that he managed to condense all these arguments onto just a few pages. It obviously sufficed to simply allude to the various problems of forgery, the bad odour, contamination and cannibalism, because all these arguments were now so well known to his contemporaries. While mummies were still in use for medicine, and continued to be imported into Europe,<sup>50</sup> they were now widely regarded as disgusting in an unproductive way.

### ***5. Dissolving the Paradox. The Eighteenth-Century Aesthetic Debate on Disgust***

As the previous section has shown by exploring the early modern discussions of mummies, the paradox of disgust had by the early eighteenth century gradually begun to lose much of its productive vigour. This process continued with more and more firmness leading to the almost complete dissolution of the paradox.

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<sup>47</sup> See, on the connection between Jews and mummies, Philip Schwyzer, ‘Mummy is Become Merchandise: Literature and the Anglo-Egyptian Mummy Trade in the Seventeenth Century,’ in *Re-Orienting the Renaissance: Cultural Exchanges with the East*, ed. Gerald MacLean (Basingstoke: Palgrave Macmillan, 2005), 79–81.

<sup>48</sup> Neumann, *Chymie*, 737.

<sup>49</sup> Ambroise Paré, *Discours de la mumie, de la licorne, des venins et de la peste* (Paris: Gabriel Buon, 1582), 7–8.

<sup>50</sup> The entry for ‘mummy’ in Johann Georg Krünitz, *Ökonomisch-technologische Enzyklopädie*, vol. 96 (Berlin: Joachim Pauli, 1804), 662, states that there were still 80–100 centners shipped into the port of Marseille each year — but this was in comparison to an alleged 3000–4000 in former times. The change is attributed to the decline in demand in medicine and painting (on the use of mummy in colours, see Catarina Isabel Bothe, *Der größte Kehrlicht aller Farben? Über Asphalt und seine Verwendung in der Malerei* (Mainz: Phillip von Zabern, 1999), 34–40).

As to why this happened is easy to speculate and hard to prove. Certainly, the changes must be placed in the context of broader intellectual, cultural and social long-term developments which often tend to be seen as important shifts towards modernity. However, instead of venturing out onto thin ice by building on too much on the overstretched term ‘modernity’ and thereby risking to fall back into simplistic and outdated narratives of civilization, sanitation and deodorization, the next section seeks to address the background of the changes to the paradox of disgust from a different angle. In the following pages I will connect the change in early modern scientists’ emotional reactions to bodily matter with the extensive research conducted by the comparatist Winfried Menninghaus on the mid-eighteenth-century aesthetic debate on disgust, which reveals how, in these years, disgust would become deeply problematic on an intellectual level.<sup>51</sup> Making this connection helps to understand why it today seems so much more counterintuitive to acknowledge the positive aspects of disgust (although they might still be sensed in the appeal of disgusting horror movies) than it was for people in the sixteenth and early seventeenth centuries. But to reach that point, we first have to follow the trail left by the mummies one final step further.

The shift to a less ambiguously negative perception of the mummies is exemplified by a passage in Johann Gottfried Herder’s 1787 treatise *Ideen zur Philosophie der Geschichte der Menschheit*. Here, Herder used the mummy as a metaphor to describe China. In doing so, he transferred the emotional culture of the mummy to a very different but no less emotionally-charged context: the prospering German discourse on China, which had shifted drastically over the course of just a few decades from admiration and intense Sinophilia to outright contempt and Sinophobia.

Herder compared the far eastern empire to ‘an embalmed mummy, painted with hieroglyphs and wrapped in silk’.<sup>52</sup> The comparison caught on and the mummy became closely attached to China — even Karl Marx would use it when discussing China.<sup>53</sup> The mummy, a once widely-used and broadly-accepted object, had now become mere shorthand for

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<sup>51</sup> Menninghaus, *Disgust*, 25–101; Winfried Menninghaus, ‘Ekel-Tabu und Omnipräsenz des “Ekels” in der ästhetischen Theorie (1740–1790),’ *Poetica* 29, no. 3/4 (1997), 405–31.

<sup>52</sup> Johann Gottfried Herder, *Ideen zur Philosophie der Geschichte der Menschheit*, 1787, in Johann Gottfried Herder, *Sämtliche Werke*, ed. Bernhard Suphan (Berlin: Weidmann, 1877–1913), vol. 14, 13.

<sup>53</sup> See e. g. Rolf J. Goebel, ‘China as an Embalmed Mummy: Herder’s Orientalist Poetics,’ *South Atlantic Review* 60, no. 1 (1995), 111–29; Weigui Fang, *Das Chinabild in der deutschen Literatur, 1871–1933: Ein Beitrag zur komparatistischen Imagologie* (Frankfurt/M. et al.: Peter Lang, 1992), 107–11.



backwardness and stagnation — negative terms that would stick to China up to the country's political turmoils and economic successes in the 20th century.

This is more significant than it might at first seem. In the seventeenth and eighteenth centuries, metaphors were of outstanding importance in aesthetics and meant to be performative and highly evocative.<sup>54</sup> In the words of Emanuele Tesauro, a baroque philosopher, metaphors were meant 'to bring the mind at once from one topic to another', to present, 'in a single word, a whole theatre full of wonders'.<sup>55</sup> In the case of Herder's mummy, the metaphorically-invoked world was one thrumming with emotions, not least, the emotion of disgust. But to understand this, we must first explore the context of Herder's writing.

Herder was a protagonist in the first intense philosophical debate about disgust in the 1760s together with Moses Mendelssohn, Immanuel Kant and Gotthold Ephraim Lessing.<sup>56</sup> While nuances set them apart, all of them defined disgust as *the* counterpart of beauty. All the other negative emotions, like horror, fear or anger could, in their opinion, enhance aesthetic beauty, which was seen as always caused by a mixed feeling — a fruitful combination of positive and negative. To them, only this mixture of feelings was aesthetically productive because too much beauty in itself would be boring, overly sweet and disgusting. Disgust's role was to signify that an object had transcended its climax, that is the point at which perfection was not yet achieved. Perfection itself was seen as lying beyond the climax of beauty, because, at that point, it was simply no longer interesting to imagination any more. Thus, the consumer of art would then feel repletion and tedium.

Lessing and his colleagues also considered disgust to be intimately connected to the senses and hence that it evoked immediate reactions which bypassed the interference of the intellectual mind. Here they found the reason why disgust could not be imitated by art: disgust was too immediate and raw to 'imitate', to be made 'art' rather than being merely the thing itself. As such, it could not be represented and was singled out as the only negative feeling which could not through imitation change its nature to produce the desired, positive aesthetic

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<sup>54</sup> Florian Nelle, 'Im Rausch der Dinge: Poetik des Experiments im 17. Jahrhundert,' in *Bühnen des Wissens: Interferenzen zwischen Wissenschaft und Kunst*, ed. Helmar Schramm (Berlin: Dahlem University Press, 2003), 152.

<sup>55</sup> Emanuele Tesauro, *Il Cannocchiale aristotelico o sia Idea dell' argute et ingenua elucutione che serue à tutta l'Arte oratoria, lapidari, et simbolica* (Turin, 1670), 386, quoted in Nelle, 'Im Rausch der Dinge,' 152.

<sup>56</sup> Menninghaus, *Disgust*, 25–101; Menninghaus, 'Ekel-Tabu'. See also, Sianne Ngai, *Ugly Feelings* (Cambridge: Harvard University Press, 2005), 334f.

impact.<sup>57</sup> Disgust had clearly now transformed from a potentially fruitful, regenerative concept into an unwanted and unproductive opponent. Concerning the medicinal functions of disgust, the only one remaining was its capacity to indicate the threat of disease, which – over the following years – tended to be more and more explained with infection, toxication and germ theory, which would in the long run replace the miasma model.<sup>58</sup> At the same time, a long tradition in aesthetics found a conclusion, which had started with the writings of Plato and was based on the attractivity of aversion.<sup>59</sup> In sum, the productive paradox of disgust was completely annihilated.

Hence, in Herder's writings on aesthetics, mummies were cast as the dead and disgusting Egyptian counterpart to beauty. If real beauty is perfect only by its imperfection, mummies were the symbol of 'eternal duration' in the 'rigidity of the grave', the disgusting antithesis of art.<sup>60</sup> To be beautiful, art needed the possibility of evolution, to get better, to constantly be in motion — an idea expressed in Lessing's famous term of the 'fruitful moment'.<sup>61</sup> Disgust, on the other hand, signified too much beauty, the point at which improvement is no longer possible and everything turns to ugliness, stagnation and death.

In the late eighteenth century, when the fascination with progress reshaped understandings of the world fundamentally, the idea of disgust as stagnation was vitally important.<sup>62</sup> The formerly-splendid example of the powerful empire of the East, China, was now made into something completely at odds with the newly found European ideals. China 'emerge[d] . . . as an unrelenting panorama of stagnation, boredom and death'.<sup>63</sup> Stagnation, as a counterpart to the now-vaunted European progress, was turned into something disgusting. At the same time, the paradox of disgust had lost its productivity and its fascination — a loss that had its profound impact on responses in regard to bodily matter.

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<sup>57</sup> Johann Adolf Schlegel, 'Anmerkungen,' in Charles Batteux, *Einschränkung der schönen Künste auf einen einzigen Grundsatz* (Leipzig, 1770), vol. 1, 111.

<sup>58</sup> This function prevails in many twentieth-century definitions of the emotion, for example Rozin and Fallon, 'A Perspective on Disgust,' 23: 'Our definition [for disgust] is as follows: Revulsion at the prospect of (oral) incorporation of an offensive object. The offensive objects are contaminants'.

<sup>59</sup> See footnote 21.

<sup>60</sup> Menninghaus, *Disgust*, 58f.

<sup>61</sup> Johann Ephraim Lessing, *Laokoon: Oder über die Grenzen der Malerei und Poesie*, ed. Karl Maria Guth (Berlin: Books on Demand, 2016), 21.

<sup>62</sup> Reinhart Koselleck, *Futures Past: On the Semantics of Historical Time*, trans. Keith Tribe (Cambridge, Mass.: MIT Press, 1985); Lucian Hölscher, *Die Entdeckung der Zukunft* (Göttingen, Wallstein Verlag, 2016); Aleida Assmann, *Ist die Zeit aus den Fugen? Aufstieg und Fall des Zeitregimes der Moderne* (München: Hanser, 2013).

<sup>63</sup> David Porter, 'A Peculiar but Uninteresting Nation: China and the Discourse of Commerce in Eighteenth-Century England,' *Eighteenth-Century Studies* 33, no. 2 (2000), 181–199, here 182.

## 6. *Disassociating from Disgust. Blumenbach, Lichtenberg and the Australian Skull*

Johann Friedrich Blumenbach, an anatomist and professor in Göttingen in the late eighteenth century, also wrote about mummies. His interests, however, differed from those of his predecessors. To him, mummies were interesting mainly as anthropological objects, as remnants of an extinguished culture and as useful material by which to learn more about the human body and its preservation. His example will, as the concluding case study of this article, showcase how much emotional reactions towards bodily matter had changed as the eighteenth century drew to a close.

In a treatise on his examinations of mummies in London, first published in the *Philosophical Transactions of the Royal Society*, Blumenbach's tone was distinctly neutral.<sup>64</sup> Parts of the text very much resemble accounts of dissections although Blumenbach is certainly not picking up on the vivid usage of disgust applied by some of his sixteenth century anatomist-colleagues like Felix Platter. Instead, Blumenbach is coldly graphic in describing how he cut and sawed open the mummified bodies.

Yet emotions still creep in at the tail end of his treatise where, in a jarring shift of tone, he felt the need to distance his scientific study of the mummies from the 'disgusting practice' of ingesting these bodies as if they were food served at table.<sup>65</sup> In another publication, on the mummies' teeth, Blumenbach felt the need to argue that mummies could never have been widely consumed as medicine — a denial that, as he no doubt knew, was as we have seen absolutely false.<sup>66</sup> In both cases, Blumenbach tried to create a clear separation between his scientific interest in mummies from now outdated practices that involved swallowing the material. By declaring these disgusting, he tried to protect his own scientific practices from any association with that emotion. Disgust could no longer serve to add positive attraction to a scientist's work.

Blumenbach is not only known as one of the founders of Egyptology, but was also one of the first racial theorists. In support of his studies, his correspondents supplied him with skulls from all over the world. Blumenbach possessed a collection of 229 skulls,<sup>67</sup> along with many

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<sup>64</sup> Johann Friedrich Blumenbach, 'Observations on Some Egyptian Mummies Opened in London,' *Philosophical Transactions of the Royal Society London* 84 (1794), 177–195.

<sup>65</sup> *Ibid.*, 195.

<sup>66</sup> Johann Friedrich Blumenbach, 'Von den Zähnen der alten Aegyptier und von den Mumien,' *Göttingisches Magazin der Wissenschaften und Litteratur* 1, no. 1 (1780), 132.

<sup>67</sup> As the collection was augmented by Blumenbach's successors, the actual number of 'his' skulls varies in the literature. I follow the sources from the context of the acquisition by the Göttingen University in 1840 published in Mike Reich and Alexander Gehler, 'Der Ankauf der Privatsammlung

fragments of skeletons, various body parts, as well as two entire Egyptian mummies, all preserved in Göttingen to this day.<sup>68</sup>

One of the skulls in Blumenbach's collection reached Göttingen in 1793.<sup>69</sup> It was the remnant of an indigenous inhabitant of Australia sent from Sydney Cove, the newly-established British settlement on the southern continent.<sup>70</sup> In various letters, Blumenbach had pressured his correspondent, Joseph Banks, to provide him with just such an object.<sup>71</sup> Banks was, having accompanied James Cook on his first voyage, deeply involved with the British explorations of the Australian continent and thus, after a few years of waiting, he was able to fulfil his friend's wish.

The emotional response in Germany, when the Aboriginal skull finally arrived, was, judging from the reaction of a colleague of Blumenbach's, one of extreme enthusiasm and praise: Georg Christoph Lichtenberg, himself an important figure in eighteenth-century scholarship, commented on it in a letter that lacks any sense of disgust. Instead, it shows its writer gushing with excitement about the 'glorious catch'.<sup>72</sup> Lichtenberg's overflowing joy presented as he 'testified his delight with the quill' and expressed his cheerful consideration of the value of Blumenbach's collection, was so great that he excitedly offered his own skull for the sake of his friend's scientific research. Here, the separation of science from disgust is definitely fully completed. Negative emotional implications of bodily matter were totally overshadowed by scientific enthusiasm.

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von J. F. Blumenbach (1752–1840) durch die Universität Göttingen', *Philippia* 15, no. 3 (2012), 169–187, here 174.

<sup>68</sup> The material provided him with the basis from which to develop his categorization of five different human races in Johann Friedrich Blumenbach, *De generis humani varietate nativa* (Göttingen, 1795). See Nell I. Painter, *The History of White People* (New York: W. W. Norton, 2010), 72–90; Londa Schiebinger, *Nature's Body: Gender in the Making of Modern Science* (Boston: Beacon Press, 1993). Blumenbach's attitudes to racism are the subject of controversial discussion. John S. Michael has recently pointed to the influence of mistakes in Bendyshe's 1865 English translation, John S. Michael, 'Nuance Lost in Translation: Interpretations of J. F. Blumenbach's Anthropology in the English Speaking World,' *NTM* 25 (2017), 281–309.

<sup>69</sup> Johann Friedrich Blumenbach, *Decas tertia collectionis suae craniorum* (Göttingen: Johannes Dieterich, 1795), 13, ill. XXVII; Staats- und Universitätsbibliothek Göttingen, Catalog. Nr. 1, 1793/1794, Cod. MS. Blumenbach 1 I, 9<sup>r</sup>; Paul Turnbull, *Science, Museums and Collecting the Indigenous Dead in Colonial Australia* (Cham: Palgrave Macmillan, 2017), 33–70.

<sup>70</sup> For a detailed analysis of the procurement of the skull, see Matthew Fishburn, 'The Field of Golgotha: Collecting Human Skulls for Sir Joseph Banks,' *Meanjin* 76, no. 1 (2017), 104–16.

<sup>71</sup> *The Correspondence of Johann Friedrich Blumenbach*, 6 vol., 1773–1805, ed. Frank William Peter Dougherty, revised, augmented and edited by Norbert Klatt (Göttingen: Norbert Klatt, 2006–2015).

<sup>72</sup> Georg Christoph Lichtenberg to Johann Friedrich Blumenbach, after 1 September 1793, in *Correspondence*, ed. Dougherty and Klatt, vol. IV: 1791–1795, letter 820, 287.

This was not the last time Lichtenberg would marvel on the idea of human bodily matter as a source of scientific inspiration. During a visit in December 1795, Blumenbach had shown him the head of a mummy which had arrived from London shortly before. In a letter following this meeting, Lichtenberg revels in the idea of placing the mummy's head on his own desk and in front of his bed.<sup>73</sup> This 'company', Lichtenberg muses, should prove stimulating, especially during his nightly lucubrations between 1 and 3 o'clock in the morning, an inspiration that the simple company of his mundane furniture could not provide. Finally, he concludes his emotional outburst by asking Blumenbach to please, just once, lend him the mummy head for 24 hours to keep him company. Although these passages are certainly exaggerated in tone, in their reactions to human bodily matter they nevertheless demonstrate how very far scientists had distanced themselves by the end of the eighteenth century from the emotion of disgust.

### ***Conclusion***

Building on the necessarily limited scope of the presented examples, this article seeks to open the way to further research by challenging the still-influential narrative of the early modern time and its people, which claims that, because of their supposed lack of civilization, individuals were less likely to feel disgusted and thus acted in ways which we now find extremely strange. As weird as ingesting excrement and mummies might seem at first glance, however, this did not mean that early modern people were not disgusted by the matter; they had reasons, originating in part from their conception of the emotion itself, for doing it nonetheless. A deeper analysis of these reasons might enable us to better understand early modern societies, emotions, as well as how people dealt with various kinds of bodily matter.

The case studies assembled in this article suggest that, rather than the emotion's outright existence or its intensity, it was the perception and the usages of the paradox of disgust that changed over the period. By the eighteenth century at latest, the paradox had lost much of its vigour and productivity. Clearly, it will still be essential to further investigate the causes behind the paradox's changes by studying the interrelations between the emotional perception of bodily matter and changes in related fields, including religion, philosophy, economy (for example, trade restrictions or changing attitudes towards luxuries), time regimes, or simply better conservation methods in anatomical dissections.

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<sup>73</sup> Georg Christoph Lichtenberg to Johann Friedrich Blumenbach, 11.12.1795, in *Correspondence*, ed. Dougherty and Klatt, vol. IV: 1791–1795, letter 960, 488–90.

While disgust certainly ‘sticks’ to objects — and especially to objects connected to the human body, death and decay — human interventions, changing patterns of perceptions and the power of different situations play an influential and shaping role in how even an emotion as powerful and instantaneous as disgust is interpreted and experienced. At the end of the early modern period, various fields of knowledge began to more sharply differentiate themselves from each other and, as they did so, the interests and emotional rhetoric of the scientists changed as well. They now tried hard to manage the emotional responses to the bodily matter they handled in their research by creating different emotional settings for different situations, as when Blumenbach tried to confine feelings of disgust towards mummies only to the act of eating them.

The biology of senses and neuroscientific research on emotions increasingly emphasize that sensory and emotional experiences differ considerably in relation to the various situations in which they take place — or in which particular actors place them.<sup>74</sup> Variations in situations and human interventions change, as we can see when comparing the presented case studies, the way emotions are used, expressed, perceived and correspondingly reacted to. And that is perhaps what makes them historical after all.<sup>75</sup>

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<sup>74</sup> Lisa Feldman Barrett, *How Emotions are Made: The Secret Life of the Brain* (London: Macmillan, 2017). See also Rob Boddice, ‘The History of Emotions: Past, Present, Future,’ *Revista de Estudios Sociales* 62 (2017), 10–15, here 13; Wolfram Aichinger, ‘Sinne und Sinneserfahrung in der Geschichte: Forschungsfragen und Forschungsansätze,’ in *Sinne und Erfahrung in der Geschichte*, ed. Wolfram Aichinger, Franz X. Eder and Claudia Leitner (Innsbruck et al.: Studien Verlag, 2003), 9–28, here 17.

<sup>75</sup> The aim to historicize emotions is at the core of the history of emotions. For the ongoing debate, see Rob Boddice, ‘The Affective Turn. Historicizing the Emotions,’ in *Psychology and History: Interdisciplinary Explorations*, ed. Cristian Tileagă and Jovan Byford (Cambridge: Cambridge University Press, 2014); Katie Barclay, ‘Introduction: Emotions and Change,’ *Emotions: History, Culture, Society* 1, no. 2 (2017), 1–9.