Goethe as Ecophilosophical Inspiration and Literary Model

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If any single German writer comes close to the importance which Henry David Thoreau possesses in the US-American literary tradition as principal founder of the national 'environmental imagination' (Lawrence Buell), it is Johann Wolfgang von Goethe (1749-1832). Goethe's standing as the greatest German writer in modern times is undisputed, and nature has been central to public interest in his work: "Nature is the concept which stood at the very centre of Goethe interpretation from the very beginning and still does today", writes Karl Robert Mandelkow.[1] On the basis of his poems, novels, plays and essays, he was already understood by his friend and collaborator Schiller, together with his Romantic contemporaries, as an advocate of nature and a poet of sensual perception. From the middle of the nineteenth century on, the conception of nature expounded in his voluminous scientific studies has also been a matter of constant debate and served repeatedly as a source of inspiration. Arguments based on Goethe have been at the heart of an 'alternative' German discourse on nature and environment over the past century and a half, and Goethe's influence on the literature of nature in Germany is greater than that of any other writer.

Commentators on Goethe's role as a forerunner of environmentalism have noted the influence of his holism, for example, on the writings of the geographer Alexander von Humboldt, whose descriptions of landscapes anticipated the principle of the ecosystem by stressing the interdependence of geology, climate, flora and fauna. In England, Goethe was hailed as a precursor by Charles Darwin and Thomas Huxley. In the decades that followed, Ernst Haeckel, founder of the science of ecology, fused the Goethean conception of nature with the theory of evolution in his writings and popularised them in the Monist movement, while Rudolf Steiner, the father of anthroposophy, who edited Goethe's scientific writings, promoted practical

applications in the spheres of education, farming, medicine, architecture and the theatre. More recently, the parallels between Goethe's thinking on nature and developments in twentieth-century science have been discussed by the physicists Werner Heisenberg and Carl Friedrich von Weizsäcker, and his significance for environmental ethics has been underlined by the philosopher Klaus Michael Meyer-Abich.[2]

However, Goethe wrote in an age too different from ours for him to be plausibly claimed as an early environmentalist. His thinking on nature, science and technology was also too complex for such a reductive classification. Indeed, two diametrically opposed camps may be made out in the reception of his thinking on nature since his death. In the second half of the nineteenth century, most mainstream commentators and cultural functionaries celebrated Goethe as the champion of Faustian striving, and his works were cited in support of the belief that individual self-realisation could go hand in hand with economic capitalism and faith in scientific and technological progress. Marxist critics such as Georg Lukács adapted this perspective, interpreting *Faust* as a representation of man's struggle for freedom, social justice and the self-realisation of the individual through control over nature, and this understanding of Goethe became quasi-official cultural policy after the Second World War in the GDR.

Among those who focused instead on the ecocentric dimension of his writings, what Mandelkow has described as the omnipresent political distortion and ideological appropriation of Goethe's ideas has been equally apparent. Time and again, he has been enlisted in problematic antimodernist critiques of calculating business practice and exploitative science, or adapted to fit into a world view characterised by polarities between 'Kultur' and 'Zivilisation', community and society, instinct and reason, loyalty and dissident critical intellect.[3] Nietzsche, for instance, saw in Goethe's 'return to nature' a superior (conservative and anti-revolutionary) alternative to Rousseau's ideas, and the anti-Semitic political philosopher and cultural critic Houston Stewart Chamberlain championed his holism in the early years of the twentieth century as an alternative to contemporary 'atomistic' scientific practice. The Goethean terms 'Gestalt', 'metamorphosis' and 'morphology' were

extrapolated into an aesthetic of organic totality, symbolic beauty and the transfiguration of nature by Ernst Cassirer and Eduard Spranger, and found wide currency among conservative thinkers in the nineteen-twenties and thirties, who ignored the historical, social and political conditions under which Goethe wrote.[4] For decades after the Second World War, the concept of organic development was central to the understanding of Goethe in West Germany. Despite challenges by individual critics such as Klaus Ziegler, the view prevailed that Goethe's conception of nature was one of cosmic laws, harmonious order, organic development, reason and health. The environmentally oriented interest in Goethe which emerged in the nineteen-seventies was on the one hand a rebuttal of the sharply critical assessment of Goethe as a political thinker which had become customary in the previous decade. It marked a shift from the politics of class to those of ecology, or from red to green. More importantly, however, it was also a leftist response to this longstanding conservative appropriation of Goethe's conception of nature.

To what extent, I ask first of all in this chapter, were the ecological arguments which emerged in the late twentieth century genuinely prefigured in Goethe's thinking on nature? And secondly, what part have reference to Goethe as an authority and critical dialogue with him played in reflection on our relationship with nature and the formulation of environmentally informed standpoints in the works of writers in the nineteen-seventies and eighties?

Jost Hermand strikes a wise note of caution in the chapter on Goethe in his book on the ecological aesthetic in German literature, *Im Wettlauf mit der Zeit*:[5]

> 'Goethe als Kritiker der Technik', 'Goethe als holistisch denkender Naturphilosoph', 'Goethe als Vordenker unserer Weltlage': all das sind goldene Worte, die sicher mehr versprechen, als sie halten können. (1991b: 36)

Nonetheless, Hermand goes on to argue that Goethe can justifiably be regarded as a proto-ecological thinker. He finds in both Goethe's scientific writings and his literary works images of utopian reconciliation with nature alongside warnings of the dangers of a suicidal alienation from nature. The fragmentary epic poem 'Die Geheimnisse' (Goethe 1998: II 271-81)[6] and the novel *Wilhelm Meisters Wanderjahre*, which is described as concerned with

the “devastating consequences of the capitalist implementation of technology […], in which Goethe saw a great danger for nature in the future” (pp. 43f.), are for instance seen to anticipate the land communes of the Alternative Movement in the nineteen-seventies in their presentation of (part-masonic, part-ecological) fraternities leading a way of life striking a balance between self-realisation and social responsibility.

Hermand writes of the ‘gentle empiricism’ with which Goethe approaches the study and use of nature, tempering Enlightenment liberation of humankind from the bonds of necessity with a respect and reverence for nature rooted in pantheism. He outlines Goethe’s holistic view of the universe, which recognised humanity as an integral part of nature and anticipated ecological principles by stressing the interdependence of the mineral, vegetable, animal and human spheres. The Enlightenment metaphor for the universe as a machine is, Hermand writes, replaced in Goethe’s work by a conception of nature as an organic whole, unified by “a certain law of analogies” (p. 38, quoted from a letter to Karl Ludwig von Knebel in 1788) and a common principle of evolution from simple forms to more complex ones. Above all, in Hermand’s eyes Goethe subscribes to the principle of a meaningful integration of human beings in the natural order:

> Goethe war [...] in dieser Zeit einer der wenigen, der [...] ein Weltbild entwarf, dem das Prinzip der sinnvollen Integration des Menschen in die Natur zugrunde lag. [...] Sein Ideal war daher ein *humanus naturalis*, der sowohl Sinnen- als auch Vernunftwesen ist, der sich der Natur bedient und sich zugleich in sie einordnet, der sich als selbständiges Wesen fühlt und doch die Grenzen seiner Möglichkeiten im Auge behält. (p. 41)

This is a persuasive assessment of the lasting significance of Goethe’s conception of nature. However, it glosses over aspects of his thinking which do not fit into Hermand’s understanding of the poet as a ‘Green’. Goethe may register and express anxiety about the industrial transformation of Germany which began in his lifetime, but, for obvious historical reasons, no sense of the fragility of the biosphere is to be found in his thinking. He is also, as Kate Rigby has put it, “the inheritor of a tradition from which he never entirely freed himself, whereby the appropriation and domination of the earth by humanity was in some sense preordained” (2004: 211). It is thus only logical that, as Margrit Wyder has shown, the *scala naturae* (i.e. the ladder of creation, a

hierarchical variant of the notion of the chain of being) was his central metaphor for nature (however significant his dynamic reinterpretation of this age-old static image), rather than the ecological metaphors of the 'web' or 'network' of life, which avoid implications of hierarchy (1999: 1-4). Further, Goethe's critique of the instrumental relationship with nature exemplified in the Enlightenment is, like that of the Romantics, not primarily rooted in environmental concerns, but focused on implications for the human individual. As Rigby notes, his principal preoccupation is with the dual impoverishment of humanity resulting from the demand we close off our imaginations, emotions, and capacity for empathy, and from the relegation of the corporeal aspect of the self to mechanical nature (2004: 22f.).

The 'grüne Weltfrömmigkeit' in which Hermand finds the principal legacy of Goethe's thinking on nature is also a problematic reduction. The term 'Weltfrömmigkeit', which appears in *Wilhelm Meisters Lehrjahre* (VIII 243), where it is introduced in contrast with 'Hausfrömmigkeit' (i.e. conventional domestic piety), resonates with Romantic pantheism (which saw nature as the physical embodiment of a divine creative force). It thus corresponds to the eco-spiritualism which flowered in Germany and elsewhere in the early nineteen-eighties. In a more general way, it also reflects the respect, modesty and sense of obligation towards the world at the heart of Goethe's approach to nature and the natural sciences. There is a genuine correspondence between this principle and Deep Ecologists' efforts to extend our sense of self to the environment, so as to foster an ethos of caring. However, elevating 'green piety' to the key to Goethe's thinking on nature ignores the presence of other approaches and arguments in his writing, and the development of his views over time. It obliterates the tensions between Promethean domination and wondering 'letting be' which run right through his work, and disregards the complexity of his poetic statements.

Goethe played a key role in synthesising and reformulating several distinct strands of philosophical tradition which have fed into modern German ecologism. Both the pantheistic religiosity of his earlier writing and the mature conception of scientific study as 'observation of nature' exemplified in the *Farbenlehre* (i.e. patient observance, accompanied by openness to the

physiological, aesthetic and emotional impact of perceptions on the observer)[7] have been enormously influential. However, contemporary writers have also found in him a uniquely rich source of images and narratives, and a sophisticated model in the use of strategies and techniques for the formulation of experience. In this respect too, Goethe has then had much to offer for authors seeking to promote the ecological consciousness indispensable for the longer-term survival of humankind in our age of population growth, resource depletion and pollution.

In the following, I begin by tracing the re-examination of Goethe's conception of science by environmentally committed thinkers in the nineteen-seventies and eighties, with reference to commentaries by the literary historian Leo Kreutzer, the philosopher Klaus Michael Meyer-Abich, the physicist Fritjof Capra and the writer, essayist and critic Adolf Muschg. There follows a brief account of the principal understandings of nature reflected in Goethe's poetry, prose fiction, essays and scientific writings. Their adaptation and mediation through narrative structures and imagery is then discussed with reference to *Faust* – a work written over forty years, which reveals the shifts in his thinking, and arguably encapsulates his most profound insights into modernity and the relationship of humanity with the natural environment. The final part of the chapter examines representative instances of creative literary dialogue with Goethe in the writing of Hanns Cibulka, Klaus Modick and Volker Braun.

1. The revival of interest in Goethe's conception of science

Goethe's scientific writings rather then his poetry, plays or novels provided the principal focus of attention in the environmental turn in his reception. 'Porträt eines Verlierers, daher aus erstaunlicher Nähe' was the subtitle of an article on Goethe's thinking on nature published by Leo Kreutzer in 1978. Goethe as a loser: the allusion was above all to his unsuccessful challenge to Newtonian physics in the *Farbenlehre*, which constituted an affinity with the Greens as seemingly powerless opponents of the government's nuclear energy programme and heirs to a tradition of marginalised thinking on our relationship with nature. Kreutzer quotes from the inaugural lecture of the

eminent physiologist Emil Du Bois-Reymond, Rektor of the University of Berlin in 1882, in which Goethe the scientist was referred to as an 'auto-didactic dilettante'. He notes, however, that since the age of scientific positivism, Goethe's science has been the subject of more sympathetic commentaries by the physicists Werner Heisenberg and Carl Friedrich von Weizsäcker, and the Swiss zoologist Adolf Portman.

Kreutzer's approach to Goethe is explicitly linked with the anti-nuclear movement:

> Ich bin betroffen durch eine naturwissenschaftlich ermöglichte Beherrschung der Natur, die gegenwärtig einen Grad erreicht hat, der, in Zerstörung umschlagend, auch den Gleichmütigsten nicht mehr unberührt läßt; diese Betroffenheit […] teile ich mit vielen. [...]
> Aufschauend von den Büchern, mußten wir irgendwann gewahr werden, daß die technologischen Weiterungen naturwissenschaftlichen Vorankommens dabei sind, unsere Welt rabiat zu verändern. Die Konflikte um die sogenannte friedliche Nutzung der Atomenergie haben uns dann hellwach gemacht. […] Was ist wirklich von ihm zu halten, von diesem immer beängstigender werdenden, den Menschen und seine Umwelt immer mehr überfordernden Siegeszug der Naturwissenschaft und Technik? Ich bin, wie viele andere dies fragend, auf den Naturwissenschaftler Goethe gestoßen. (1978: 382f.)

Living in an age when science was already primarily concerned with controlling nature, Goethe insisted on what could be experienced directly through the senses, and rejected experiments depending on complicated apparatus.[8] In areas of dispute such as the geological debate between the Neptunists and the Volcanists, he based his support (generally for the former) as much on taste as on scientific evidence, and insisted on the ethical dimension of scientific research. His warnings of the limitations of abstract mathematical analysis, his conviction of the importance of the observing subject, and of intuition as a path to knowledge, and finally his indulgence in the metaphorical truth of a 'language of nature' made him an outsider in natural science.

"Going 'back to Goethe' is neither possible nor desirable", Kreutzer concedes. But the poet deserves consideration in the context of questions urgently requiring answers today, in particular "the question whether scientific research should be set *limits*, whether it should be governed by ethical principles". He concludes with the passionate but carefully chosen words:

Uns verbindet mit Goethe die Einsicht in die Notwendigkeit, naturwissenschaftlicher Forschung und ihren technologischen Weiterungen Maßstäbe zu setzen: sie zu verpflichten, die Natur sich selbst und den Menschen nicht immer weiter zu entfremden; nicht immer das Machbare zu machen, ohne zu fragen, wem dann da die Kräfte der Natur dienstbar gemacht werden. (p. 390)

Goethe's scientific writings were the subject of a conference convened in Trieste by Horst Albert Glaser a few years later, which brought together the Hölderlin scholar Pierre Bertaux, the nature philosopher Klaus Michael Meyer-Abich, and the biochemist Friedrich Cramer. In the conference papers, published under the title *Goethe und die Natur*, the universalist poet was again seen as a model in the struggle against specialisation and alienation. These were the years of forest dieback and the intensified threat of nuclear war following the NATO dual track decision to upgrade the nuclear weapons stationed in Germany. Science and technology appeared increasingly as agents of destruction and instruments of domination and control. Goethe's gnostic holism, and his alternative conception of scientific practice as 'gentle empiricism'[9] had acquired a new relevance.

In one of the more substantial contributions, Klaus Meyer-Abich asks what we can learn from Goethean science. Though he distrusted machines, Goethe was not opposed to technology in principle. His general aim, "to learn the way nature works by listening attentively" (Meyer-Abich 1986: 48), was almost identical with that of his Enlightenment contemporaries. Meyer-Abich finds the particular qualities of Goethe's holistic, life-orientated conception of scientific research formulated most clearly in the preface to *Zur Morphologie*, his Morphological Studies written in 1807. After initially seeking to impose his will on nature, the scientist, according to Goethe, will learn to recognise its powers and venerate them (XIII 53). Meyer-Abich notes that Goethe goes on to forge a direct link between recognition of the mutual influence of mankind and nature on each other, and self-development, or self-perfection on the part of the observer. Nature provides a model for all spheres of human activity: Goethe writes elsewhere "that we make ourselves worthy of spiritual participation in nature's productions by observation of its constant creation" (XIII 30f.). In his alternative, 'symbolic' practice, science thus converges with education and art.

Several contributors to *Goethe und die Natur* noted that Goethe's studies of the forms of natural objects, of symmetry and variation anticipated developments in modern physics. This argument was put more forcefully by the physicist and New Age thinker Fritjof Capra. In his influential book *The Turning Point* (1982), Capra identified the challenge to traditional (Newtonian) physics represented by modern (alternative) science as a paradigm shift from the mechanistic world view to a holistic, ecological one. Deforestation, desertification, the hole in the ozone layer, the greenhouse effect, the extinction of species, population growth and growing social inequality are for him all facets of a general crisis of modernity, to which the New Social Movements and the theories of outsiders in modern science constitute responses. Capra combined psychotherapy, a spiritualism derived from the Tao and the book of *I Ching*, and a plea for 'modern' science and system theory in a heady mix, impressing on his readers the need for a dynamic balance of Yin and Yang, i.e. self-realisation and integration, rational and intuitive thinking, analysis and synthesis, growth and preservation.

Capra, who has worked in the US and Britain since the sixties, but is Austrian by birth, toured Germany in the early nineteen-eighties and wrote a new introduction for the second edition of the German translation of his book, entitled 'Das ganzheitlich-ökologische Denken in der deutschen Geistesgeschichte', in which he explored the tradition of holistic and ecological thinking in Germany (1991: 1-11). Goethe, he observed, is the central figure in the development of ecological holism in German thought (p. 5), bringing together ideas from Hermetic tradition and the Kabbalah, the early modern nature mysticism of Paracelsus and Böhme, and the philosophies of Bruno and Spinoza, and anticipating modern systems theory (p. 3). In Goethe, whom he described as a "synthetic writer, convinced of the rights of nature and thinking in networks", Capra found striking parallels with Gregory Bateson's arguments in *Mind and Nature* (1979). Goethe's statements on the ethics of scientific research corresponded to Bateson's concerns, and his concept of a 'bewegliche Ordnung' (I 203), or flexible order in nature, coincided with the systems-theory biologist's conception of cyclical processes and the polarity of opposites.

Perhaps the most eloquent and informed call for recognition of the ‘Green wisdom’ in Goethe’s writing, literary as well as scientific, came from the Swiss novelist, dramatist, essayist and literary scholar Adolf Muschg. Two short essays written in 1979 and 1981, and published in the volume *Empörung durch Landschaften* (1985), reveal deep concern over the environmental impact of modernisation, industrialisation and the consumer society, both abroad (in China) and at home in Switzerland. ‘Ansichtssachen’ and ‘Empörung durch Landschaften’ (‘Points of View’ and ‘Indignation Over Landscapes’) reflect his shock on realising the loss of nature, the impending disappearance of landscapes and cultural heritage, and the threat to a way of life associated with his childhood – but equally an acute awareness of his own privileged position, and the proximity of such nostalgic feeling to blindness to the rights and needs of others. Mindful of the imperative to link ecology with social justice, he nevertheless insists on the importance of a modification of Romantic civilisation criticism such as to practise resistance to “the universal theft of the present” (p. 20).

When Muschg’s book *Goethe als Emigrant. Auf der Suche nach dem Grünen bei einem alten Dichter* appeared in 1986, he had taught Goethe for over thirty years, edited the *West-östlicher Divan* and the *Wanderjahre*, and adapted a narrative fragment of Goethe’s for the stage (Muschg 1971). The essays collected here reveal the gradual emergence of his appreciation of Goethe as a Green thinker. Posing the iconoclastic question ‘Is Goethe Fun?’ in the earliest essay, which was written in 1968, he comments: “The defiance with which he stood by the evidence accumulated through his love [of nature], facing the tribunal of the new natural sciences, is moving” (p. 186). Alluding to the condescending remarks of later scientists on Goethe’s opposition to the fragmentation of knowledge into individual disciplines, he writes: “We are in a better position to appreciate the wise instinct present in his apparently quixotic stance” (p. 187). By the eighties, Muschg had sharpened the focus of his solidarity with Goethe as an opponent of Enlightenment rationalism. Of the poem ‘Erlkönig’ he notes: “At the time, the poem was concerned with the *threatening* of nature; today we hear in it the voice of nature *threatened*”, and he suggests ‘Der Zauberlehrling’ might be read as a commentary on the

build-up of nuclear weapons in Europe (p. 30). The elegy ‘Die Metamorphose der Pflanzen’ which he describes as “a model of relationships and adequate forms for our dealings with nature and our fellow humans”, exemplifies “a Goethe of contemporary relevance” (p. 30).

But it is to *Wilhelm Meisters Wanderjahre* and the *Farbenlehre* that Muschg turns especially, as major works deserving attention as pointers to an alternative relationship towards nature. The *Wanderjahre* can and should be read today as “the study of a project in communal survival [...] under the conditions of the industrial age” (p. 13). The *Farbenlehre* is described as a compendium of appropriate ways of relating with nature. Goethe had rejected Newtonian spectral analysis as a threat to the intactness of nature, resulting, since the observer is himself a part of nature, in “reduction, even possible destruction of the self” (p. 39). His own consciously amateur approach, involving empathy and identification, constitutes a “nature wisdom” from which we can learn today:

Sein wissenschaftlicher Takt sagte Goethe, daß Gefühl in der Hand sein muß, die nach der Natur greift, und daß nicht jeder Griff erlaubt ist; daß ein ausbeutendes Verhältnis zum Objekt sich rächt in der Verarmung des Subjekts; daß es zwischen beiden Korrespondenzverhältnisse zu entdecken, zu pflegen, ja zu retten gibt. [...] Die nachbarlich-dilettantische Gefühls- und Naturweisheit, die wir nötig haben, ist bei Goethe vorgebildet. (p. 40)

“To call Goethe ‘green’”, he argues, is therefore “not just an eye-catching allusion to contemporary politics” (p. 18). Goethe may not have been a model democrat, but his approach to nature, vindicated by developments in modern science such as game theory, relativity and the uncertainty principle in quantum mechanics, demands the observed phenomenon be allowed to retain its dignity, and is guided by an ethic of social viability:

[Er] wäre schwerlich ein Eideshelfer basisdemokratischer Verfahren. [...] Wohl aber hat der Glaube, daß der Mensch in jedem Baum sich selber ehrt, in jedem Tier seinesgleichen begegnet, in Goethe einen bis auf den Zwischenkieferknochen erprobten Zeugen. Daß die Natur nicht für den Entreißdiebstahl geschaffen ist, daß sie ihren Segen an einen schonenden, einen ‘zarten’ Umgang bindet, brauchte ihm nicht erst angesichts der gefährdeten Natur aufzugehen. Die Symmetrie, das Gleichgewicht zwischen Subjekt und Objekt verstand sich für ihn aus dem Bewußtsein der Verwandtschaft, der analogen Bildung, der Bedingtheit durcheinander. Die Anerkennung dieser Symmetrie, die Herstellung dieses Gleichgewichts war für ihn eine Frage der natürlichen Würde und des moralischen Ranges. (ibid.)

Like Kreutzer, Meyer-Abich and Capra, Muschg sees in Goethe's holism a blueprint for the shift away from anthropocentrism to the more ecocentric world view on which our survival will depend, one which accords rights to nature. Goethe's scientific writings provide a unique basis for the formulation of a contractually enforceable environmental ethic:

Damit die Tagesordnung unserer Zivilisation nicht ungebremst auf den Jüngsten Tag zulaufe, bedürfen wir nicht mehr bloß der Wahrung der Menschenrechte [...] Wir brauchen auch ein Habeas Corpus für unsere Materien; die tätige Einsicht, daß sie 'Mutterstoff', eigensinnig, schutzbedürftig, kurzum: daß sie unseresgleichen sind, für Ausbeutung ebenso zu gut und zu teuer wie wir. [...] Wir brauchen einen Code – eine Konvention – erlaubter Umgangsformen mit der hochempfindlich gewordenen Natur, eine Stilkunde der Schonung. Einem solchen Vertragswerk ist in deutscher Sprache nirgends weiter vorgearbeitet als bei ihrem größten Schriftsteller in seinen naturwissenschaftlichen Schriften. (pp. 69-70)

In a recent, rather more cautious commentary on Goethe's conception of science, Daniel Steuer has located his principal achievement as lying in his critical identification of the Enlightenment world view as constituting the context for the scientific activity of his contemporaries, and the attention he drew to the mediatedness of all scientific knowledge:

Science is no longer seen to approximate a true representation of nature, but to construct its own objects through its conceptual and technological procedures. Competing theories are seen to be evaluated for their fit not with nature but with theoretical fashions and the policies of funding bodies. The anthropology of knowledge which has thus emerged, and which very much resembles Goethe's contextualisation of scientific activity, does not amount to a complete relativism. But the empirical content of scientific knowledge is perceived to be highly mediated. (2004: 176)

Beyond this, there are unmistakable resonances between the cosmological vision implicit in the literature and science of Goethe and the Romantics, and the new physics of quantum dynamics and unified field theory. As Kate Rigby notes with reference to a recent study of English Romanticism by Mark Lussier, these not only have a common point of departure in the perceived inadequacy of dualistic and mechanistic procedures, they also share the principles of complementarity, uncertainty and the participation of the observer (2004: 5). In an essay written in 1792 outlining his theory of scientific practice, 'Der Versuch als Vermittler zwischen Objekt und Subjekt' (XIII 10-

20), Goethe deplored the effacement of the role of the observer, and the substitution of mathematical formulae for sensual experience. What Max Weber has more recently called the 'disenchantment' of nature (i.e. the suppression of animism and the replacement of the medieval organicist world view of the Earth as nurturing, in some instances: threatening, mother by Baconian scientific method, Cartesian rationalism and Newtonian physics) has had the effect of depriving the non-human of moral considerability and thus paved the way for a purely instrumental attitude towards nature. Goethe's identification of 'polarity' and 'intensification' as expansive and inhibiting forces common to all organic and inorganic matter directed attention towards the active, self-organising dimension of the universe. His redefinition of the unity of nature as based not on a primal oneness, but a 'Wechselwirkung', or interconnectedness and interdependence of organisms with one another and their inorganic environment, was an important step in the emergence of modern ecological consciousness (Rigby 2004: 32f.).[10]

2. Conceptions of nature in Goethe's literary and scientific writing

In 1991 the environmental historian Rolf Peter Sieferle published a paperback reader entitled *Natur. Ein Lesebuch*. His aim was to provide the basis for public reassessment of dominant Western conceptions of nature and alternatives to them: "The texts presented here [...] have been selected so as to illustrate the history of the experience of nature, explain the origin of the current environmental crisis and perhaps indicate ways of saving nature" (1991: 2). Each section of the book includes a text by or about Goethe. The first, entitled 'Creation, Cosmos, Myth', includes the fragment 'Die Natur', which was written by the Swiss theologian Georg Christoph Tobler, but accepted by Goethe as a reflection of his own views in the early seventeen-eighties. Sieferle's judgement of the importance of this text, a *locus classicus* of the imaging of nature as bountiful mother, is underlined by the reproduction of an excerpt on the back cover of the book. Mother Nature here assumes a darker guise. The perils accompanying the treatment of nature as mere raw material for our use convey an implicit environmental message:

Natur! Wir sind von ihr umgeben und umschlungen – unvermögend aus ihr herauszutreten, und unvermögend tiefer in sie hineinzukommen. Ungebeten

und ungewarnt nimmt sie uns in den Kreislauf ihres Tanzes auf und treibt sich mit uns fort, bis wir ermüdet sind und ihrem Arme entfallen. (XIII 45)

An extract from Albrecht Schöne's study of the *Farbenlehre* (Schöne 1987: 94-103) is reproduced in the second section of Sieferle's anthology, on scientific approaches to nature. A passage from the *Wahlverwandtschaften* (VI 269-76) features in the third, under the heading 'The Nature of Man', and the poem 'Die Metamorphose der Pflanzen' (I 199-201) may be found in the fourth, which is concerned with plants and animals. The fifth section, which comprises literary landscapes, contains a letter written to Frau von Stein in 1799 conveying Goethe's experience of the sublime in crossing the Alps (Goethe 1988, I 274-6). Sieferle presents a final Goethe text in the last section of the book, which is devoted to the explicitly environmental topic, 'The Destruction of Nature'. This is the letter of 15 September, 1771, from *Die Leiden des jungen Werthers*, which laments the felling of the nut trees in the vicarage garden in whose shade Werther had spent pleasant hours with Lotte the previous July:

Man möchte rasend werden, Wilhelm, daß es Menschen geben soll ohne Sinn und Gefühl an dem wenigen, was auf Erden noch einen Wert hat. Du kennst die Nußbäume, unter denen ich bei dem ehrlichen Pfarrer zu St .. mit Lotten gesessen, die herrlichen Nußbäume, die mich, Gott weiß, immer mit dem größten Seelenvergnügen füllten! Wie vertraulich sie den Pfarrhof machten, wie kühl! und wie herrlich die Äste waren! [...] Ich sage dir, dem Schulmeister standen die Tränen in den Augen, da wir gestern davon redeten, daß sie abgehauen worden – abgehauen! Ich möchte toll werden, ich könnte den Hund ermorden, der den ersten Hieb dran tat. Ich, der ich mich vertrauern könnte, wenn so ein paar Bäume in meinem Hofe stünden und einer davon stürbe vor Alter ab, ich muß zusehen. Lieber Schatz, eins ist doch dabei: Was Menschengefühl ist! Das ganze Dorf murrt, und ich hoffe, die Frau Pfarrerin soll es an Butter und Eiern und übrigem Zutrauen spüren, was für eine Wunde sie ihrem Orte gegeben hat. (VI 80f.)

The isolation of extracts from their textual and extra-textual context can be problematic. Readers unaware of the fate to which Werther's exaggerated indulgence in feeling for nature leads, and unfamiliar with Goethe's critical detachment from his protagonist, could overlook the tell-tale traces of emotional excess present in the passage ("möchte rasend werden", "möchte toll werden", "könnte den Hund ermorden", "mich vertrauern könnte") and his comically impotent spite in the final lines, and conclude that Goethe was

himself an environmental activist. Sieferle's anthology is, nevertheless, not only useful as a reminder of historical positions which anticipated aspects of our own concerns and sensibilities, but also of the range of conceptions of nature in cultural tradition, and of the diversity of Goethe's work.[11]

In the early nineteen-nineties, Peter Matussek wrote of the "boundless number of studies of Goethe's conception of nature" (Matussek 1992: 10), and publications over the last fifteen years such as Peters 1993, Kaiser 1994 and 2000, Matussek 1998, Wyder 1998, Richards 2002, von Engelhardt 2003, Jäger 2004 and Rigby 2004 have further added to the secondary literature on aspects of nature in Goethe's work. Alfred Schmidt's twenty-page entry 'Natur' in the recent *Goethe-Handbuch* (Witte et al. 1998: IV Part 2, 755-76) is, however, typical in drawing a caesura around 1780 between two broad phases in Goethe's thinking on nature. The first of these, in which a religious conception of nature is fused with dynamic youthful emotional identification, stood under the influence of thinkers as diverse as Ossian, Herder, Bruno, Spinoza, Shaftesbury and Rousseau. It is succeeded by objective study and contemplation in Goethe's mature work. Four main currents of thinking on nature may be distinguished which converged in Goethe's writing. The first of these is the Pantheist belief in nature as manifestation of the divine and its 'Romantic' reinterpretation as an active subject and living organism, focusing on the causality, free creativity and boundless productivity underlying the universe, rendering it a being with which the individual can communicate intuitively. Characteristic of Goethe's *Sturm-und-Drang* phase, this finds expression in early poems such as 'Maifest' (I 30f.) and 'Ganymed' (I 46f.). Its problematic dimension is already explored in *Werther*. Werther's letter of 10 May, 1771 is a supremely eloquent formulation of the experience of union with nature, and wondering appreciation of its calm beauty and multiplicity:

Ich bin [...] so ganz in dem Gefühle von ruhigem Dasein versunken, [...]. Wenn das liebe Tal um mich dampft, und die hohe Sonne an der Oberfläche der undurchdringlichen Finsternis meines Waldes ruht, und nur einzelne Strahlen sich in das innere Heiligtum stehlen, ich dann im hohen Grase am fallenden Bache liege, und näher an der Erde tausend mannigfaltige Gräschen mir merkwürdig werden; wenn ich das Wimmeln der kleinen Welt zwischen Halmen, die unzähligen, unergründlichen Gestalten der Würmchen, der Mücken näher an meinem Herzen fühle, und fühle die Gegenwart des

> Allmächtigen, der uns nach seinem Bilde schuf, das Wehen des Alliebenden, der uns in ewiger Wonne schwebend trägt und erhält; mein Freund! wenn's dann um meine Augen dämmert, und die Welt um mich her und der Himmel ganz in meiner Seele ruhn wie die Gestalt einer Geliebten – dann sehne ich mich oft und denke: Ach könntest du das wieder ausdrücken, könntest du dem Papiere das einhauchen, was so voll, so warm in dir lebt [...] Aber ich gehe darüber zugrunde, ich erliege unter der Gewalt der Herrlichkeit dieser Erscheinungen. (VI 9)

Aesthetic pleasure, mystery and wonder lead here to a sense of the presence of the Almighty, but Werther's feelings of infinite wellbeing and security produce a characteristic gender shift. Gerhard Kaiser has shown how the idea of 'mother nature', which was familiar to Goethe from a variety of Classical sources, Christianity and Eastern philosophy and religion, came to replace the traditional figure of the father creator, in works from Goethe's early verse epic 'Der Wanderer' (I 41) to the end of *Faust* Part II ('das Ewig-Weibliche'). Goethe, Kaiser argues, played a significant part in the construction of 'mother nature' as a literary figure (Kaiser 1991).[12] His images of matriarchal security in a world of patriarchal reason anticipate the celebration of Gaia and feminine, nurturing qualities by ecofeminists in the nineteen-eighties. At the same time, as indicated above, *Werther* reveals unmistakable traces of the author's detachment from his protagonist's raptures. The gendering of nature present in the image of the world and the heavens as Werther's beloved is a male fantasy betraying traces of desire for possession and domination. (The phrase "mein Wald" already introduces a jarring note of possessiveness above.) The worms and midges next to his heart and his closing confession of inability to express his overwhelming sentiments hint at the danger of indulgence in emotional outpourings while ignoring physical realities and social needs. While idealising nature as the harmonious opposite of exploitative technology and dissonant society, Goethe then simultaneously hints at the shortcomings of this approach to nature.

Other passages in *Werther* foreground modern man's estrangement from nature. In the letter of 18 August, the landscape, hitherto a manifestation of the divine and an invigorating source of joyful feelings of harmonious integration, becomes a cause of misery for Werther. At the very height of summer, its appearance changes to that of an 'eternally devouring and

regurgitating monster', against which humans must struggle to assert their freedom, in inherently destructive activity:

Es hat sich vor meiner Seele wie ein Vorhang weggezogen, und der Schauplatz des unendlichen Lebens verwandelt sich vor mir in den Abgrund des ewig offenen Grabes. Kannst du sagen: Das ist! Da alles vorübergeht? Da alles mit der Wetterschnelle vorüberrollt, so selten die ganze Kraft seines Daseins ausdauert, ach, in den Strom fortgerissen, untergetaucht und an Felsen zerschmettert wird? Da ist kein Augenblick, der nicht dich verzehrte, und die Deinigen um dich her, kein Augenblick, da du nicht ein Zerstörer bist, sein mußt; der harmloseste Spaziergang kostet tausend armen Würmchen das Leben, es zerrüttet ein Fußtritt die mühseligen Gebäude der Ameisen und stampft eine kleine Welt in ein schmähliches Grab. Ha! Nicht die große, seltne Not der Welt, diese Fluten, die eure Dörfer wegspülen, diese Erdbeben, die eure Städte verschlingen, rühren mich; mir untergräbt das Herz die verzehrende Kraft, die in dem All der Natur verborgen liegt; die nichts gebildet hat, das nicht seinen Nachbar, nicht sich selbst zerstörte. Und so taumle ich beängstigt. Himmel und Erde und ihre webenden Kräfte um mich her: ich sehe nichts als ein ewig verschlingendes, ewig wiederkäuendes Ungeheuer. (VI 52f.)

Goethe here anticipates the bleak nihilism of a strand of nineteenth-century literature exemplified by Jean Paul's 'Rede des toten Christus vom Weltgebäude herab, daß kein Gott sei' and Büchner's *Woyzeck*, and of certain subsequent philosophers (Schopenhauer and Nietzsche). This current of thinking constituted the implicit other of Romantic efforts to reconcile modern man with a nature from which he has become alienated, by means of philosophical, theological and poetic holism (see Frühwald 1989).

In Goethe's early work, the pastoral conception of the 'natural' as inherently virtuous which underlay the literary celebration of simplicity and self-limitation, the idealisation of country life and critique of urban, courtly luxury in seventeenth and eighteenth-century 'Landlebenliteratur' is more important. In *Werther*, it is evident in the letters of 12, 15 and 26 May 1771, which depict Arcadian scenes suggesting an ethic of frugality, modesty, and self-restraint, conducive to the harmonious integration of the individual in the natural environment. The most striking passages are perhaps to be found in the letter of 21 June, where Werther describes the "features of patriarchal living" in Wahlheim:

Wie wohl ist mir's, daß mein Herz die simple, harmlose Wonne des Menschen fühlen kann, der ein Krauthaupt auf seinen Tisch bringt, das er selbst gezogen, und nun nicht den Kohl allein, sondern all die guten Tage,

> den schönen Morgen, da er ihn pflanzte, die lieblichen Abende, da er ihn begoß, und da er an dem fortschreitenden Wachstum seine Freude hatte, alle in *einem* Augenblicke wieder mitgenießt. (VI 29f.)

There is no gender dimension to this critique of civilisation as a suppression of original human innocence, goodness and communitarianism, spontaneity, health and happiness. However, it is accompanied, as in Rousseau's writings, by a striving for political emancipation which finds clearest expression in the letters of 15 May, 1771 and 15 March, 1772 (VI 10f. and 68).

The holist understanding of nature, whether conceived of in medieval terms as the 'great chain of being', a notion rooted in the perfection and completeness of divine creation, or inspired by the Neoplatonists' systems of correspondences between different spheres of existence, constitutes a further distinct strand in Goethe's thinking. It is present in his early pantheistic effusions, but comes into its own in the essay 'Über den Granit' (XIII 253-8), where Goethe subordinates nature religion to scientific observation, and suggests creative writing can contribute intuitively to knowledge by divining symbolic relationships between natural phenomena and the human sphere. Goethe's holism finds its best-known symbolic expression in the poem, 'Wandrers Nachtlied', which links the spheres of the inorganic (the mountain tops) with organic plant life (the forest), the animal world (the birds) and finally the human, thus admitting the subject to a harmonious cosmic order. It is also conceptualised in 'Die Metamorphose der Pflanzen' (I 199-201) and 'Metamorphose der Tiere' (I 201-3).

A final significant aspect of Goethe's understanding of nature is associated with his critique of contemporary industrialisation. Traces of this are already to be found in the *Reise in der Schweiz 1797*, and in Goethe's letters and conversations, but it only comes to the fore in *Wilhelm Meisters Wanderjahre*. In the novel's 'Pedagogical Province', the negative aspects of modernisation are countered by a four-fold 'respect' for what is above, beside, below and in us. A strikingly bleak vision of the future in 'Lenardo's Diary' expresses the author's anxiety in the face of the coming age of large-scale mechanised factory production, which he anticipates will destroy handcraft and small-scale manufacturing, and have a baneful influence on culture and society, bringing unemployment, division of labour and alienation:

Das überhandnehmende Maschinenwesen quält und ängstigt mich, es wälzt sich heran wie ein Gewitter, langsam, langsam; aber es hat seine Richtung genommen, es wird kommen und treffen. [...] Man denkt daran, man spricht davon, und weder Denken noch Reden kann Hülfe bringen. [...] Noch schwebt Ihnen das hübsche, frohe Leben vor, das Sie diese Tage her dort gesehen, wovon Ihnen die geputzte Menge allseits andringend gestern das erfreulichste Zeugnis gab; denken Sie, wie das nach und nach zusammensinken, absterben, die Öde, durch Jahrhunderte belebt und bevölkert, wieder in ihre uralte Einsamkeit zurückfallen werde. (VIII 429f.)

Underlying this development is a new attitude towards nature, bent on its instrumental exploitation. In 'From Makarien's Archive' Goethe writes of the destructive impact of those contemporaries who seek:

[…] von jeder neuen Entdeckung nur so geschwind als möglich für sich einigen Vorteil zu ziehen, indem sie einen eitlen Ruhm, bald in Fortpflanzung, bald in Vermehrung, bald in Verbesserung, geschwinder Besitznahme, vielleicht gar durch Präokkupation, zu erwerben […] und durch solche Unreifheiten die wahre Wissenschaft unsicher machen und verwirren, ja ihre schönste Folge, die praktische Blüte derselben, offenbar verkümmern. (VIII 472)

Goethe should not be misunderstood here as expressing a blanket rejection of all forms of modernisation and industrial development. His views on industrialisation must rather, as Michael Niedermeier points out, be seen in the context of contemporary developments in the Swiss economy: it was no accident that Goethe developed the theme of the ruin of craftsmanship and small-scale manufacturing by 'mechanisation' as a paradigmatic feature of the age in the *Wanderjahre* after learning from Johann Heinrich Meyer about the crises in the Swiss textile industry (2000: 123). Niedermeier concludes cautiously that Goethe's views on the rise of the machine can only be understood in the context of the time and of his personal experiences, whether or not one shares his doubts about the approaching modern age (p. 125).

All these conceptions of nature are present in *Faust*, which represents Goethe's most sustained reflection on the challenge of modernity to traditional conceptions of the place of humanity in the natural context. Peter Matussek's book *Naturbild und Diskursgeschichte* and his essay in the edited volume *Goethe und die Verzeitlichung der Natur* are among the most significant recent studies of nature in Goethe's work as a whole, and in *Faust*

in particular.[13] Matussek follows Foucault and Lepenies in seeing the end of the eighteenth and the beginning of the nineteenth century as marked by the shift away from the conception of history as a *natural* phenomenon to one of nature as a *historical* one which culminated in Darwin's theory of evolution. Within this context, he traces Goethe's shifting conceptions of nature through their reflection in different *Faust* passages written over a period of sixty years. In the process, he illustrates not merely the complexity of Goethe's understanding of nature, but also its significance for his aesthetic theory and poetic practice.

Matussek's starting point is the proposition that a broad chronological development from anthropocentrism to physiocentrism may be assumed in Goethe's writing, beginning with the active agency of the subject and ending with that of nature. However, he argues that in Goethe's later work the poet actually abandons his conviction that the meaning of things may be read from them (this underlies the early Classical phase of his writing), and returns to a position where the writer invests the object with meaning. This reversal, which suggests the poet's recognition that true physiocentrism was ultimately untenable, is accompanied by the adoption of an aesthetic strategy of allegory rather than organic symbolism. Reviewing four phases in the poet's work, each of which is in itself complex and contains contradictory elements, Matussek distinguishes between the following attitudes towards nature, reflected in *Faust*:

- enthusiastic knowing, commanding and imposing one's will. This 'expressive' conception of nature is found in passages written up to 1775, for instance in the scene where Faust conjures up the 'Erdgeist' (354-513), and in the *Urfaust* (III 376-420),
- empathy, intuitive knowledge and harmonious integration of the subject. This 'sympathetic' conception of nature is illustrated by the opening monologue in the scene 'Wald und Höhle' (3217-50), first published in *Faust, ein Fragment* in 1790,
- investing with meaning and deducing abstract principles from concrete examples. This procedure is reflected in the 'harmonising' conception of

nature expressed in the 'Osterspaziergang' section of the scene 'Vor dem Tor' (903-48), published in 1808,

- visionary construction of nature. Goethe's 'constructivist' conception of nature is, according to Matussek, exemplified in the final monologue of *Faust* Part II (11559-80).

In the first of these passages, Faust is frustrated by the thought that knowledge of nature can only be gained by accumulating facts and the rational explanation of hidden mechanisms. He turns to mystical contemplation, which yields a vision of the chain of being. Not satisfied with the role of non-participant observer, he then resorts to an alchemist experiment. Through this he succeeds in conjuring up the spirit, but not in understanding it. For "the emphatic sense of union proves to be an illusion […]. Instead of further penetrating the secrets of nature, Faust is repulsed by his own projection, the Earth Spirit, and forced to return to the abstract world of the scholar." (Matussek 1998: 210) Matussek reads in this scene both a formulation of the 'expressive' relationship with nature fundamental to the *Sturm und Drang* movement and a critique of it.

It is as if the second, 'Wald und Höhle' monologue, written a decade later, attempts to show how this failure to communicate with nature can be made good, through subjective experience of loving oneness with the living force in all things. Faust's empathy, which is rooted in conviction of the possibility of the individual recognising intuitively the true nature of things, but also embraces scientific knowledge, is also reflected in 'Über den Granit'. However, both the passage from the play and the essay, Matussek notes, end not in calm contemplation, but in restless enquiry, again suggesting dissatisfaction and uncertainty on the part of the author.

In the third, 'Osterspaziergang' passage, Faust and Wagner observe the rejoicing population on Easter Sunday. Human nature is described in analogy to the natural environment in a series of carefully constructed parallels. Both are brought to new life by the light of the sun. Unlike the associative symbolism of the previously discussed monologue, physical objects serve here as representations of abstract ideas. Faust "invests the objects of nature with higher value by means of his idealising eye; it is he who

provides the symbolic content, by speaking of ‘joyful hope’, ‘shaping and striving’, ‘rising again’, and ‘becoming human’” (p. 221). This passage (and poems from the same period such as ‘Die Metamorphose der Pflanzen’) reflects the theoretical basis which Goethe’s scientific studies had acquired through his reading of Kant and the exchange of ideas with Schiller in the seventeen-nineties. In its implication of a pre-established harmony between natural and historical processes it corresponds to Schelling’s nature philosophy. Faust directs Wagner’s attention to the analogies between nature and society, “making visible the originary phenomena, which can only be perceived in the here and now of momentary experience, as concrete manifestations” (p. 225). Here again, Matussek finds tell-tale traces in the text which call the conceptual framework into question.[14]

The constellation whereby Goethe presents an approach to nature, only to undermine it through language and form, is repeated in Matussek’s eyes in the final, constructivist monologue: “This is the language of military planning teams, exclusively focused on outcomes” (p. 231). Although the thrust of Matussek’s book leads away from the question of Goethe’s contribution to our understanding of nature today and possible alternatives, his argument has been traced at some length here because he shows how *Faust* constitutes an ongoing negotiation with the conceptions of nature of his time: Goethe’s achievement lies in “his poetic dramatisation of each stage in his critical engagement with the shifting emphases and radical turnarounds in the natural history of his time” (p. 202). The poet’s representations of nature exemplify the potential of aesthetic configuration to break with conventional thought patterns and use new images to explore the complexities of our relationship with the natural environment. This is particularly true of the final Act of *Faust* Part II, which calls for closer examination, because it has been the focus of more explicitly ecologically-oriented readings of the work.

3. *Faust* Part II, Act V: The ambivalence of modernity

One of the most influential books on the politics of environmentalism to appear in Germany in the nineteen-seventies was the Conservative politician Herbert Gruhl’s bestseller, *Ein Planet wird geplündert* (Gruhl 1975).[15] In the

introduction, the author, at the time CDU spokesman on environmental issues, later one of the founders of the German Green Party, described an episode towards the end of Goethe's *Faust* Part II as anticipating the central problem of our age. Philemon and Baucis, an aged couple who lead a simple life in harmony with nature, here fall victim to the blind ambition of Faust, who is seen by Gruhl as embodying the destructive forces of technology:

Einer der wenigen, die tief in das Wesen der lebendigen Natur und des Menschen eingedrungen sind, ist Johann Wolfgang Goethe gewesen. Solche Tiefe ist seither nie wieder erreicht worden. Die geringe Beachtung Goethes heute spricht Bände über den Geist der Zeit. In den grandiosen Bildern seines *Faust II* hat Goethe auch unsere Epoche vorausgesehen: die Liquidation der beiden Alten, Philemon und Baucis, stellt die Ausmerzung der letzten Reste einfachen Lebens dar, die in die moderne Zeit hineinragen. Und wie sinnträchtig, daß Faust erblindet, als er die technischen Projekte voranzutreiben wähnt, während in Wirklichkeit bereits sein Grab bereitet wird. (p. 18)

This interpretation of *Faust* reflected an international trend. In his classic study of modernity, *All That Is Solid Melts Into Air*, Marshall Berman has described how Faust, the archetypal "intellectual nonconformist, a marginal and suspicious character", who "'loses control' of the energies of the mind, which then proceed to take on a dynamic and highly explosive life of their own", became a villain in popular American culture in the nineteen-seventies.[16] Partly in response to gargantuan Communist projects to dam and divert rivers in Siberia, regardless of their ecological consequences or their cost in terms of human life, the figure of Faust came to personify the scientific technocrat's desire to control and dominate. Cited in influential critiques of the 'restlessness' of modern man, which allegedly drove modernisation in general and the development of weapons of mass destruction in particular, and associated with nuclear disasters, biological warfare and genetic engineering, Faust became synonymous with scientific irresponsibility and indifference to human life and liberty. Berman traces the emergence in the United States in the nineteen-sixties and seventies, in books by Norman O. Brown, Gunther Stent and Bernard James, of the belief that to live the good life, or indeed just to survive, "'Faustian Man' must go": "As debate intensified through the seventies on the desirability and limits of economic growth, and on the best

ways to produce and conserve energy, ecologists and anti-growth writers typecast Faust as the primal 'Growthman', who would tear the whole world apart for the sake of insatiable expansion, without asking or caring what unlimited growth would do to nature or to man" (p. 83).

Gruhl reads Goethe's play as a straightforward condemnation of Faust's actions. He praises the author's foresight, which is reflected in various allusions in the play to the dangers of self-centred subjectivity, and above all represented symbolically through Faust's blindness. However, he fails to recognise the implications of the formal and thematic complexity of the work. Such one-sided understandings of the Faust story flatten, as Berman has put it, tragedy into melodrama. Faust's motivation, when his grand project to regain new land from the sea by building dykes is first mooted in Act IV, is a titanic wish to conquer the elements and control the power of the sea:

Zwecklose Kraft unbändiger Elemente!
Da wagt mein Geist, sich selbst zu überfliegen;
Hier möcht' ich kämpfen, dies möcht' ich besiegen. (10219-21)

The scenes 'Offene Gegend', 'Palast' and 'Tiefe Nacht' with which Act V of *Faust* Part II opens underline the negative aspect of Faust's insatiable striving. Yet the colonisation project in which he then engages is represented in an essentially positive light. Faust's last monologue reveals a shift away from amoral obsession with self-assertion to social commitment. His plans to secure fertile farmland by draining a pestilent swamp and building dykes are formulated in the much-quoted utopian vision of future generations of free men living in plenty, together maintaining the dykes which keep the waves at bay:

Ein Sumpf zieht am Gebirge hin,
Verpestet alles schon Errungene;
Den faulen Pfuhl sich abzuziehn,
Das Letzte wär' das Höchsterrungene.
Eröffn' ich Räume vielen Millionen,
Nicht sicher zwar, doch tätig-frei zu wohnen.
Grün das Gefilde, fruchtbar; Mensch und Herde
Sogleich behaglich auf der neusten Erde,
Gleich angesiedelt an des Hügels Kraft,
Den aufgewälzt kühn-emsige Völkerschaft.
Im Innern hier ein paradiesisch Land,
Da rase draußen Flut bis auf zum Rand,
Und wie sie nascht, gewaltsam einzuschießen,

Gemeindrang eilt, die Lücke zu verschließen.
Und so verbringt, umrungen von Gefahr,
Hier Kindheit, Mann und Greis sein tüchtig Jahr.
[...]
Solch ein Gewimmel möcht' ich sehn,
Auf freiem Grund mit freiem Volke stehn. (11559-80)

It has often been pointed out that these lines are linked with positive concepts in Goethe's philosophy through the adjectives 'frei', 'tätig', and 'tüchtig'. There are, nevertheless, limits to the extent to which Faust can be seen here as the mouthpiece of the author: both diction and context suggest that empathy and admiration are tempered by critical detachment. Goethe exaggerates the scale and longevity of Faust's land reclamation scheme (e.g. in "vielen Millionen"), and his protagonist is, as Gruhl pointed out, by this time blind. The sounds which he believes derive from teams of workers completing his great project are in reality those of Lemures (spirits of the dead which the Romans believed had to be driven from houses in order to make them habitable again) digging his grave. Hence Berman's characterisation of the play as the 'tragedy of development' (Berman 1983: 40): for Goethe, legitimate pride in man's achievement and faith in his potential are tragically intertwined in human nature with hubris and self-deception.

That Faust has erred in his greed, his disregard for others, and his recourse to violence, is nowhere clearer than in his treatment of Philemon and Baucis. The original tale of the pious couple, which parallels the biblical stories of the Flood and Sodom and Gomorrha (Genesis, Chapters 6-8 and 18-19), was familiar to Goethe from Ovid's *Metamorphoses*.[17] The gods Zeus and Hermes decided to put the people of Phrygia to the test. Disguised as wayfarers, they were hospitably received by Philemon and Baucis in their mountainside hut, after being turned away by their richer neighbours in the valley below. As a reward, the two were saved from a flood that submerged the rest of the country and drowned the people. The lives of Goethe's elderly couple have been characterised by modesty, piety, and service to the community. (As a lighthouse keeper Philemon has saved travellers from shipwreck.) Their acceptance of a divine order contrasts with Faust's exclusive reliance on human reason and the work of human hands. Faust wishes to be able to survey the landscape from the sand dune their hut

stands on, but they refuse his offer of property on reclaimed land in exchange, and become a thorn in his side. When he orders Mephistopheles to transfer them to their new home forcibly, they are burned to death in their hut. Philemon and Baucis exemplify Faust's culpability and ensure his failure: the implication distantly present in their names, that his dykes will be breached and the land flooded again, is supported by Mephistopheles' prediction:

[...] du bereitest schon Neptunen,
Dem Wasserteufel, großen Schmaus.
In jeder Art seid ihr verloren; -
Die Elemente sind mit uns verschworen,
Und auf Vernichtung läuft's hinaus. (11546-50)

To the modern ear, this is reminiscent of narratives of 'nature's revenge' for man's technological arrogance and the attempt to exercise absolute control over nature. Nonetheless, the idealism inherent in Faust's incessant striving and its characterisation as an essential human characteristic ultimately qualify Faust to become the object of divine mercy rather than justice: "Gerettet ist das edle Glied / Der Geisterwelt vom Bösen, / Wer immer strebend sich bemüht, / Den können wir erlösen" (11934-7). His striving to burst the bonds of human limitations may be fundamentally flawed, but Goethe clearly finds it simultaneously heroic.

Explicitly environmentalist interpretations of *Faust*, however sophisticated, therefore tend to oversimplify a complex and at times ambiguous work.[18] In his reading of the play in *Im Wettlauf mit der Zeit*, Jost Hermand identifies Green utopias in which humankind and nature are "still homeostatically enmeshed" in the scenes 'Klassische Walpurgisnacht' and 'Bergschluchten' (1991b: 46), but goes on to reduce *Faust* to a pattern of "confrontations between nature and human egoism" (p. 48). It is, he argues, above all a tale of warning against progress, technology and capitalism: "Faust's existence inevitably becomes the *Exemplum terribilis* of a way of life and a system of production threatening the whole of nature" (p. 46). Gerhard Kaiser approaches the play from a standpoint similarly critical of contemporary science and technology. Though it contains images of the relationship with nature we ought to practise (Kaiser describes the scene

'Anmutige Gegend' as "outline model of the relationship between humans and the natural world", pp. 87-92), *Faust* is for Kaiser a predominantly pessimistic commentary on the crucial political, economic, scientific and technological changes which took place around 1800. Goethe reinterprets the Faust legend and ancient mythical narratives of the process of human civilisation (Prometheus and the story of Adam and Eve) as a "restless and ceaseless striding out, an unlimited consumption of the world, an ungovernable striving for domination of the world and the self a progress leading to catastrophe" (p. 18). The 'Laboratorium' scene where Faust's colleague Wagner brings the Homunculus into existence, a critique of the delusion of ability to create human life reminiscent of popular understandings of genetic engineering in our day, is in Kaiser's view paralleled in Faust's final vision of a thriving colony on land reclaimed from the sea and his description of it as his 'new[est] creation'.

Comments such as Hermand's that: "Faust's final monologue [...] can only be read as a manifesto of false consciousness" (p. 48) ignore the extent to which the poet identifies with his protagonist. For the vision of the future in Faust's last great speech is not merely one of the triumphalist subjugation of nature: it incorporates images of a harmonious reconciliation of nature and culture. Philemon himself describes the land already reclaimed by Faust as a garden, a paradise, and the work of intelligent minds and stout hands (lines 11085-94). Faust's downfall is precipitated by his impatience with what he can achieve by natural means and his recourse to magic. However, this magic cannot simply be equated with modern technology: it would seem rather to stand for achievement at the expense of human dignity, violating natural laws. Neither Goethe's drama in general, nor this episode in particular, would seems to be an outright condemnation of modernisation. Goethe does not reject the rational use of nature for human ends. (Nor, of course, does he warn against pollution or the squandering of resources.) His narrative rather seems to indicate the consequences of amoral, self-centred craving for power, in short: of overreach. At this point in the play Faust unifies in his person the absolutist ruler and capitalist entrepreneur. The very language of his monologue betrays the problematic nature of his actions; ellipses and

unjustified superlatives suggest indecent haste and undermine the dignity of his vision. Faust is culpable, but less because he embodies the technological ethos as such than because of his egoism, the boundlessness of his striving, and his indifference to the cost in terms of human life.[19]

Goethe's drama prompts us to ask whether the large-scale subjection of nature necessarily involves a corresponding domination of our fellow men, and raises the question to what extent structural violence is inherent in the pursuit of utopian visions. Marshall Berman has emphasised the necessity of reading *Faust* in the historical context. Its real significance, he argues, lay in Goethe's expression and dramatisation of the process by which, at the end of the eighteenth century and the start of the nineteenth, a distinctively modern world-system came into being (1983: 39). Faust's heroic deed is the liberation of repressed human energies, "not only in himself but in all those he touches, and eventually in the whole society around him". But the development he initiates – intellectual, moral, economic and social – turns out to exact great human cost (p. 40). For the Faustian enterprise demands abandoning traditional concepts of good and evil, and working with and through the new creative-destructive powers inherent in capitalism and socialism alike. The creative and destructive potentialities of modernity are thus, according to Berman, worked through in exemplary fashion in the deeply ambiguous figure of Faust the Developer (p. 63).[20] Berman cites as Faustian in the truest sense of the word the actions of concerned scientists in and after the Manhattan project who, driven by guilt and anguished social concern, sought to place nuclear technology under the control of the civilian authorities and limit the proliferation of nuclear weapons. Goethe's *Faust*, he suggests, remains a unique challenge to contemporaries to imagine and create new modes of modernity.

Harro Segeberg argues similarly that what Goethe shows in *Faust* is how the essentially laudable ideal of directing, managing and utilising nature's laws for human benefit, here symbolised by Faust's plans for a prosperous, peaceful colony of people living in social harmony and in harmony with the environment, becomes corrupted into a 'war' against nature in the pursuit of power, a 'rape' of its riches.[21] Throughout Act V of the play, control over

nature is synonymous with its destruction. Faust speaks of nature as a resource to be freely exploited: he cannot tolerate it when it is not subject to calculation and practical utilisation. Hence his perception of the way of life exemplified by Philemon and Baucis, leaving nature as far as possible to itself, as a provocation undermining his authority. (Their ‘Düne’ and ‘offene Gegend’ constitute the antithesis of his ‘Ziergarten’ and ‘gradgeführter Kanal’.) Noting the pre-modern technology involved (Faust’s dykes are built with spades and shovels), Segeberg suggests that Goethe, writing on the threshold of the age of the machine, can only envisage a realisation of such grand engineering plans (in which he showed enthusiastic interest) through the efforts of exceptional individuals, combining technological vision with political control over a large workforce.

Faust’s dyke-building project stands for efforts to liberate humanity from subservience to nature, that is from the drudgery of everyday life and exposure to natural catastrophes. However, in Goethe’s eyes this can only be realised through violent domination of nature: it requires quasi-military self-discipline on the part of the individual, and ruthless regimentation and exploitation of the workers. With satirical sleight of hand, Goethe exposes the absurdity of Faust’s belief that the (ultimately religious) idea of a utopian reconciliation of nature with itself and with all its creatures, including humankind, can be achieved by slave labour. It is not just in order to rhyme with ‘versöhnen’ (‘to reconcile’) that ‘frönen’ (‘to indulge a person’s vanity’) is substituted for ‘fronen’ (‘to labour for one’s feudal lord’) in the words of the blind Faust:

Wie das Geklirr der Spaten mich ergetzt!
Es ist die Menge, die mir frönet,
Die Erde mit sich selbst versöhnet (11540-2)

The lasting achievement of Act 5 of *Faust* Part II is, Segeberg argues persuasively, that Goethe raises the question how far engineers should rightly go in their control and utilisation of nature. Faust’s technological project is in part a response of the poet to the great storm flood of 1825, when many lives were lost on the west coast of Schleswig-Holstein, and to similarly disastrous floods in St Petersburg. It also reflects Goethe’s recorded interest in

hydrostatic engineering projects for the Suez and Panama Canals. To this extent, Faust thus anticipates heroic engineering figures such as Bernhard Kellermann's MacAllan in the bestselling novel *Der Tunnel* (1915). But his words simultaneously reveal the problematic of such engineering visions. Goethe presents us with an exaggerated caricature of a work model which is unfit for the future (p. 30), and exposes the frequently (either naively or cynically) accepted consequences of a particular conception of technology.

Goethe's scenario of failure, Segeberg concludes, outlines the consequences of, and presents for discussion, a model of human behaviour which was already controversial at the time of writing.[22] Goethe pardons Faust at the end of the play because he is convinced of the need to manage nature in order to provide the basis for a peaceful human culture, and this, in the absence of an alternative social model, is dependent on the achievement of such heroic, visionary individuals (p. 54). Despite his failings, Faust is a figure who seeks, as Goethe formulates under the heading 'Harnessing and Liberating the Elements' in his *Versuch einer Witterungslehre* (1825), to create "life with a form" (XIII 309) in the face of the formlessness and arbitrary dangers of nature.

Rigby goes beyond this explanation of the tragedy and redemption of Faust through historical contextualisation by Berman and Segeberg. She points to two aspects of the play which constitute significant failings from a contemporary ecocritical position. The first is the (unsurprising, nevertheless noteworthy) absence of a twenty-first-century awareness of the need for a 'gentle technology' to accompany Goethe's 'gentle empiricism'. The second is the shortcomings of the poet's gender assumptions. Gerhard Kaiser has noted Philemon's "idyllic description, playing down its problems" of what he describes as Faust's "irrevocably doomed industrialised agricultural landscape, devoid of field boundaries, cleared of all natural features, and traversed by canals" (1994: 46-9, here p. 46), and argued that the old man has become blinded by Faust's project, leaving his wife Baucis as the latter's only true opponent. The fate of Faust, the representative of modern man ("representative through his excess in pursuit of the very practices of modernity", p. 69), reflects modern society's need to acknowledge the

importance of values associated by Goethe with the female principle: "The end of *Faust* asserts the individual's and humankind's need for and possibility of redemption, but it also indicates the point of no return is no longer far off" (p. 83). Rigby is more critical of the poet: "Faust is in death wrested away from the Mephistophelian mire into the mountainous region of spiritual illumination, where his soul is drawn ever onward and upward by 'eternal Womanhood': a virtual form of the feminine, symbolising the impossible goal of his ceaseless striving, which seemingly redeems Faust from the wrong that he has inflicted on a variety of actual others, feminine and otherwise" (2004: 212f.). The patriarchal assumptions underlying the gendering of this transcendental turn are as problematic as its ecophilosophical implications.

Despite his generally dismissive attitude towards the appropriation of Goethe from an environmentalist standpoint in *Naturbild und Diskursgeschichte*, Peter Matussek shows a certain interest in comments on *Faust* by ecophilosophers, writers and essayists. Referring briefly to Hans Jonas, Konrad Lorenz, Adolf Muschg, Christa Wolf (*Lesen und Schreiben*, 1980) and Erwin Chargaff (*Das Feuer des Heraklit*, 1984), he distinguishes between:

- Green fundamentalists, who have read in Faust's conjuring up of the 'Erdgeist' a rejection of instrumental reason in favour of intuitive knowledge of nature (1992: 217f.),
- the generation of Alternatives or Dropouts after the decline of the Student Movement, who have found a model for their withdrawal from political engagement to poetry and observation of nature in the 'Wald und Höhle' monologue and other works of the early Classical period (pp. 277f.),
- Green realists, who have revived the conception of nature based on analogies between the human sphere and the natural environment in Goethe's mature work.

The Nobel Prize-winning researcher into animal behaviour Konrad Lorenz exemplifies the first of these approaches. In his book *Der Abbau des Menschlichen* (1983) Lorenz enlists the 'Erdgeistbeschwörung' scene in defence of suppressed instincts in an age under increasing pressure from scientism and technology. Matussek is particularly critical of Lorenz's transfer

of Goethe's championing of feelings as the principal basis of knowledge into an anti-Enlightenment context, since this negates the emancipatory dimension of the original passage. He also discerns traces of Green fundamentalism in Muschg's essays: these are, however, free of problematic political implications. Muschg is, in Matussek's view, above all a representative of the second, 'unpolitical' category of Green interpreters, because of his presentation of the poet as 'Fluchthelfer' and 'Emigrant' (i.e. instigator to escapism and withdrawal). Matussek does, however, cite Muschg a final time, as a supporter of Goethe's mature, 'harmonical' nature conception, where, in the last passage from *Goethe als Emigrant* quoted above, he calls for a code or convention of permissible forms of behaviour in our interaction with nature.

This is as far as Matussek is prepared to go in acknowledging the attempts of contemporaries to enlist Goethe's nature conception as an alternative to the dominant scientific approach (p. 22). Seeking to forestall crude over-simplification and the instrumentalisation of the poet's writings, he argues that Goethe's real legacy lies not in myth, alchemy, the theory of signatures or nature religiosity, but in his transformation of these into art (pp. 22f.). Art alone and aesthetic experience are for Goethe, in the words of Hartmut Böhme, "the possible places where the non-ideological idea of a redeemed nature can be glimpsed, if only negatively" (1988: 178). Bearing these points and reservations in mind, the final section of this chapter is concerned with the use made not only of Goethean ideas, but also of narrative material, motifs and images, by three contemporary writers, in works reflecting on the relationship between nature and culture, and the impact of modernisation and technology on the environment.

4. Writers' affinities: Goethe's enlistment as an authority in the context of GDR literary dissidence, New Age rediscovery of the Goethean way of science, and creative adaptation of Faustian ambivalences

Paul Gurk's novel *Tuzub 37* (1935), Max Frisch's *Homo Faber* (1957), Günther Schwab's *Der Tanz mit dem Teufel* (1958), Jurij Brezan's *Krabat oder die Verwandlung der Welt* (1976), Jurij Koch's *Der Kirschbaum* (1984),

Carl Amery's *Das Geheimnis der Krypta* (1990), Gert Heidenreich's *Belial oder Die Stille* (1990) and Friedrich Cramer's *Amazonas* (1991) are among the many twentieth-century reworkings of the theme of Faust as developer and technocrat. Christa Wolf alludes to Faust in *Störfall* (1987), her diary of events in the days after the nuclear accident in Chernobyl, and Faustian themes may be found in films ranging from *Metropolis* (1927, dir. Fritz Lang) to *Fitzcarraldo* (1981, dir. Werner Herzog). But few writers have entered into such an extended intertextual dialogue with Goethe as the critical socialist Volker Braun, for whom the Faust figure has provided a key crystallisation point in a searching process of reflection on Marxist ideology, historical developments in the GDR, and the future of humanity. Before looking at Braun's writing, however, I turn first to Goethe's presence in the diaries of Hanns Cibulka and Klaus Modick's novella *Moos*, in order to give a broader picture of how contemporaries have drawn on Goethe's conception of nature in texts addressing environmental issues.

Both Karl Robert Mandelkow and Peter Matussek have noted that the environmental turn in the reception of Goethe's work extended to the GDR as well as West Germany. This applies not only to the discursive commentaries they are principally concerned with, but also to the more personal essayistic responses and thematic reworkings of creative writers. Ulrich Plenzdorf's *Neue Leiden des jungen W.* (1973) is probably the best-known example of the striking use East German writers made of the literary heritage as a point of reference in the formulation of their critical social and political concerns in the nineteen-seventies and eighties. Plenzdorf's *Neue Leiden*, like the (relatively minor) Werther boom in the nineteen-seventies in West Germany, reflected the rise of New Subjectivity as well as the environmental movement, which was itself at this point closely associated with the affirmation of individuality, spontaneity and self-realisation (see Wapnewski 1975). His protagonist, the dropout Edgar Wibeau, identifies not least with Werther's ideal of rural simplicity, quoting the lines cited above from his letter of 21 June, 1771: "Wie wohl ist mir's, daß mein Herz die simple harmlose Wonne des Menschen fühlen kann, der ein Krauthaupt auf seinen Tisch bringt, das er selbst gezogen" (Plenzdorf 1973: 51).

Writing at the same time as Plenzdorf, Hanns Cibulka drew on Goethe as an authority, albeit in a more conventional way, and not in support of an alternative youth culture, but to provide his critique of modernity and socialist modernisation, and his environmental concerns, with a solid philosophical foundation. Cibulka had published volumes of poetry from the nineteen-fifties on, but he is primarily remembered for the literary diaries he wrote in the nineteen-seventies and eighties. These found a wide readership in the GDR at the time, and the better known ones have been reprinted since the *Wende*. *Sanddornzeit*,[23] an account of a summer spent on the Baltic island of Hiddensee, the *Dornburger Blätter* (Cibulka 1992), letters and literary notes describing a retreat in the castle at Dornburg where Goethe stayed in 1828, and above all *Swantow*,[24] the story of six months spent by a middle-aged couple recuperating from a road accident on the island of Rügen, all infuse evocative landscape descriptions with reflections on the environment and pessimistic visions of the future. Exemplifying the 'substitute function' of literature in the GDR, where politically sensitive issues were subject to censorship in the media, Cibulka's books played a significant role in stimulating public debate on the hitherto largely unacknowledged costs of technological progress (see Mallinckrodt 1987). Cibulka is highly critical of the materialism, aggression and hectic tempo of modern life, of which he regards pollution and nuclear contamination as tangible products. He calls for a fundamental turnaround, as much in the lives of individuals as in the policies of the state. As in the writing of representatives of Inner Emigration in the Third Reich like Ernst Wiechert and Wilhelm Lehmann, the implicit alternative is a return to a 'natural' order of modesty and simplicity.

Cibulka's diaries, passages from which echo monism, anthroposophy and New Age philosophy, trace his "slow but sustained turn to Goethe" as a spiritual guide. Individual entries are prefaced by quotations and interspersed with references to the author's reading of Goethe's work. "Goethe's scientific studies are among the most precious items in German prose literature", he writes in *Sanddornzeit*:

In Goethes 'Morphologischen Schriften' fand ich die entscheidende Ergänzung zu dem naturwissenschaftlichen Denken unserer Zeit. Jeder Stein, jede Pflanze, jedes Tier wird bei ihm mit den Sinnen erfahren, mit dem

Gefühl erlebt, mit den Augen des Geistes angeschaut. [...] Was mich beim Lesen seiner naturwissenschaftlichen Schriften immer wieder neu beglückt, ist die große, freie und beruhigende Aussicht, nach der ich jahrelang gesucht. Alles, was uns auf dieser Welt umgibt, wird bei ihm unter dem Aspekt einer höheren Einheit gesehen und erlebt. [...] In der Art und Weise, wie wir heute die Natur erkennen, fällen wir den Richtspruch über uns selbst, über unsere Existenz, unser Schicksal. Was wir heute durch die moderne Wissenschaft nach außen hin gewinnen, darf nach innen nicht verlorengehen. Die Beantwortung einer solchen Frage berührt schlechthin unsere gesamte Kultur. (1991: 61-3)

In the *Dornburger Blätter* he reads passages from the *Italienische Reise*, the *Materialien zur Geschichte der Farbenlehre*, the *Metamorphose der Pflanzen*, the letters to Zelter, and the ‘Dornburger Trilogie’ poems, and quotes repeatedly from Eckermann’s *Gespräche mit Goethe*. The Dornburg landscape is experienced as a harmonious interaction of mankind and nature, a realisation of Goethean “friendship with the Earth”. The author temporarily reverts to a slower pace of life, and rediscovers “Anschauen”, i.e. an ability to observe calmly and with empathy, which is contrasted with the noise and change of construction and industry in Jena and the destruction of nearby stone quarrying.

Written ten years later, *Swantow* is more openly environmentalist. Politically controversial because of its outspoken attack on nuclear power (which Cibulka demonises in several passages), it also tackled the issues of pollution, the extinction of species, and the alienation of our lives through bureaucratisation and technology.[25] Cibulka called for a sea-change in our consciousness, starting in the individual, for: “Nature no longer has the strength to recreate what we are destroying every day, within our selves and in our environment. Humanity is murdering itself, though it is a gradual process” (p. 128). Cibulka’s call for a renunciation of material goods, of egoism and the lust for power, and for the adoption of an ethic of pacifism, modesty, self-restraint, respect for human dignity and appreciation of our impact on the environment, posed a fundamental challenge to his contemporaries, but was, not least through his enlistment of Goethe in support of his Green message, at the same time reassuringly traditional.

The revival of interest in holist conceptions of nature which ran parallel in West Germany in the late nineteen-seventies and early eighties is clearly

reflected in the journal *Scheidewege*, in which several articles appeared on Goethe's alternative form of science (see Strolz 1978 and Meyer-Abich 1983-4). The influence of Goethe's thinking is evident in the *Philosophie der Grünen* published by Manon Maren-Grisebach in 1982, and Klaus Michael Meyer-Abich's *Wege zum Frieden mit der Natur* (1984). Klaus Modick's novella *Moos*, which also appeared in 1984,[26] is a thoughtful and stylistically polished literary product of the popular attention to Goethe as the source of an alternative to modern civilisation.

Moos contains only one direct reference to the poet: "Follow Goethe!" is the advice of the narrator's revered Professor Mandelbaum at his graduation (p.120).[27] However, the whole text is permeated with allusions to the Goethean way of science. In an introductory framing narrative, we are told that the main part of the text is a manuscript which was found on the death of the retired botanist Lukas Ohlburg. Ohlburg had a distinguished career as the author of standard works on subtropical and tropical flora, but became increasingly disillusioned with the direction taken by his discipline, and published controversial essays calling for a revision of botanical terminology. The phrase "tender science" ('zärtliche Wissenschaft', p. 119), which he uses to describe an alternative, echoes Goethe's "sensitive empiricism" ('zarte Empirie'), just as Goethe's "observing judgement" ('anschauende Urteilskraft') reverberates in the contemplative observation of nature ('Naturanschauung', p. 120) which Ohlburg now practises. Like Goethe, he rejects the abstract, conceptual and analytical approach which has contributed to our alienation from nature. He criticises "modern science's self-imposed anaesthesis of the sphere of perception" (p. 28), insisting plants cannot be properly understood unless their sensual impact on the observer, their look, feel, smell and taste, are observed and described. Modick's protagonist also follows Goethe in suggesting that true knowledge of nature demands a synthesis of science and art.

Ohlburg has retired to an isolated cottage in the Ammerland, a boggy part of Lower Saxony midway between Bremen and the Dutch border, where his family spent their holidays when he was a child. His father is depicted as a man who spent his life fighting "greenery" and "wild growth" ('Grünzeug' and

'Wildwuchs', p. 36), getting his sons to scrub the moss from the cracks in the paving around the house at the beginning of each holiday season. He exemplifies a generation whose motto was '*ratio delectat*' (p. 38): fearing the formlessness of nature, he is driven by "manic paranoia" (pp. 62f.) to impose order on it. As a botanist, Ohlburg has followed in his father's footsteps, classifying and naming things as a way of attempting to control them (pp. 38 and 40). However, following a heart attack, he has come to seek a different relationship with nature, recognising that "one await nature's approach with composure, afford it a certain symbiosis in our lives and living environments, and only fight it when it really threatens us" (p. 30). His initial intention is to bring together his critical essays in an academic study entitled 'Kritik der botanischen Terminologie und Nomenklatur' (p. 5). Several passages of the book (e.g. pp. 16 and 38-41) are indeed concerned with the stultifying and discriminatory aspects of Linnean classification, which impede rather than facilitate real knowledge of plants. However, Ohlburg soon abandons the Kantian analysis implied in his title, and the manuscript instead becomes a diary reflecting on his own life and our relationship with nature. The shift in approach and textual form is signified by his change of the title to 'Moos'. Art and story-telling, he notes, address the questions science cannot answer, the how and why, as opposed to the what (pp. 16 and 85f.).

The language he now emulates is one which "defines by expressing the indefinable", which "does justice to the individual and exceptional, and trusts what can be seen more than fixed concepts" (p. 19), affords insight into the aesthetic and sensual reality of things (p. 41), and "does not explain, but wonders" (p. 53). It is also a language which allows things to speak for themselves and express their nature. In 'Über die Farbenlehre', Goethe had written of the task of the scientist as one of listening to the language of nature:

> … vom leisesten Hauch bis zum wildesten Geräusch, vom einfachsten Klang bis zur höchsten Zusammenstimmung, von dem heftigsten leidenschaftlichen Schrei bis zum sanftesten Worte der Vernunft ist es nur die Natur, die spricht, ihr Dasein, ihre Kraft, ihr Leben und ihre Verhältnisse offenbart. […] So spricht die Natur hinabwärts zu andern Sinnen, so spricht sie mit sich selbst und zu uns durch tausend Erscheinungen. Dem Aufmerksamen ist sie nirgends tot noch stumm. (XIII: 315)

Modick echoes this conception of nature as a subject, expressing and revealing itself willingly to the patient and attentive researcher, speaking to all the human senses, including our intuition (pp. 18, 34 and 53). Ohlburg's short lyrical descriptions of the seasons and the landscape involve Goethean anthropomorphisation:

Wo Mooskissen den Boden bedecken, hält der Winter dem Märzwind viel länger stand. Das Schmelzen durchtrieft seit Tagen den Wald, der Klammheit zeigt, nackt wird. Ein Schmatzen lockert die lange Starre. Träges Getropfe vom Dach. Oder vom Überall. Sonnenstrahlen lecken an Schneeresten. Wind treibt schwadigen Dunst vom Boden auf. Die Erde gähnt und dreht sich. (p. 113)

His spiritual journey towards harmonious union with nature (p. 70), ending in the acceptance of death as a relinquishment of individuality and release into the great oneness of being, reads like an extrapolation from 'Wandrers Nachtlied'. He comes to regard his impending death as a metamorphosis rather than an abrupt ending of existence. In the introduction, we are told of the curious circumstances of the old man's death. Since he lives alone, his body is found by neighbours. It is on the floor, near a desk on which his unfinished papers lie. He appears calm and serene (p. 7), like a man who has become one with the whole of being. The secret of his serenity is revealed bit by bit in the course of the narrative, which tells of Ohlburg's doings and thoughts over the winter months he spends in the house. A picture painted by his young niece, when she visited him with her parents at Christmas, is an intuitive anticipation of his death: it depicts him lying at the edge of the forest, with his beard growing among the roots of trees: "The child knows what nature is and what is in it. She can still grasp it as a whole, with mountains we no longer see. She can speak of death, the price of life, and show it, for instance by painting me in a bed of moss" (p. 100).

Modick hints at the existence of 'correspondences' between different spheres of reality (pp. 33, 53, 77), and cites a series of myths, folk beliefs and literary works describing metamorphoses as intuitive expressions of the link between humans and trees or plants (pp. 79f.). A dream in which the circulation of blood in Ohlburg's body is associated with the ecological cycle suggests analogies between the universe and the human body.[28] Moss, the central symbol of the novella, is the cushion in the woods on which the poet

Annette von Droste-Hülshoff had lain in the poem ‘Im Moose’, which is cited by Ohlburg on the title page of his manuscript (p. 11), passing review over her life and imagining her death as an absorption, like smoke, into the pores of the Earth. But, since plant life is the equivalent of not only being dead, but also of being as yet unborn, metamorphosis into moss is also a return to primal union with Mother Nature, predating individual identity (p. 118). Modick describes a “Vermoosung” or “enmossing” of the dead Ohlburg’s beard and parts of his body (p. 8), which he had anticipated in the comment: “The individual encroaches on the whole. The whole begins to enmoss the individual” (p. 108).

Archaic, in that it developed out of the earliest plants to colonise the land, and reverted to reproducing in water, moss above all exemplifies a process of seeming return to a simpler life form, but on a higher plane of existence. This is one of many pseudo-cyclical patterns in nature, which are a model for humans: “In the sweep of its compass, human life traces a seeming regression similar to that of the mosses” (p. 108). Ohlburg sees old age as a natural return to the proximity with nature enjoyed in childhood: “There must be an urge to go back over the course of one’s life. Not in a process of ageing, senile regression, but productively, as a preparedness to revisit the experiences of childhood” (p. 21). Moss is also an emblem of the gentle power of nature: as a creature of Gaia, it seems to be seeking to repair the damage resulting from human activity and to preserve life on the planet. Ohlburg comments on the ability of certain mosses to act as chemical and radioactive sinks as “a desperate attempt, in view of the annihilation of the Earth and the disappearance of humanity, to stem this destruction with its own frail means” (p. 106).

Modick’s challenge to the “ignorant arrogance of rationalism” (p. 15) is a slight, somewhat implausible tale. Though the book is described in a review from *Szene Hamburg* quoted on the flyleaf of the second edition as an “ecological cult book”, it was not actually a bestseller when it came out, selling fewer than 2000 copies (see Modick 2005). However, a steady trickle of requests led to its republication in 1996, with a simpler title and attractive illustrations. (This edition is now also out of print.) Modick’s suggestive

language, which skilfully avoids banality, and the web of explicit and tacit allusions to Goethe, Droste-Hülshoff, Justinus Kerner and other writers make it an aesthetically satisfying piece of writing. Distancing mechanisms also allow the reader to suspend critical disbelief in the poetic 'reality' of the suggested correspondences between man and nature, and in nature as a active subject. Romantic Green irrationalism and Green politicians' ignorance of the realities of country life are chided gently by Ohlburg's younger brother Franz and a neighbouring farmer. Franz, a professional psychologist, describes Ohlburg's manuscript at the outset as a product of incipient senility, preempting the objections of critical readers, and Ohlburg himself describes his attraction to moss, and his sense that it is approaching him of its own accord in terms of the hypothetical, almost disbelievingly.

In contrast with such sympathetic alignment with Goethe's thinking on nature, the East German Volker Braun's reworkings of Goethe's plays (*Faust* in 1968 and 1973, *Iphigenie* in 1992) constitute radical adaptations in which the originals seem to serve primarily as starting points for counter-statements.[29] Braun has treated motifs and phrases from Goethe and a handful of other poets (principally Klopstock, Hölderlin, Schiller, Rimbaud and Brecht) with equal freedom in his poetry. Where the conservative cultural critic Cibulka, once described as 'the first Alternative, the first Green in the GDR' (cited in Heise 1999: 6), and the West German Green sympathiser Modick look to the Weimar poet as a precursor with a proto-ecological world view, the radical socialist Braun once described his own practice in an interview as one of 'Umstülpen', or turning on its head (see Walther 1973: 390).

However, this does not do justice to the complexity or importance of his "intellectual elective affinities" (Bothe 2004: 27) with Goethe. 'Von Gagarins Flug' (I 71f.),[30] an early poem of Braun's, reveals his initial conformity with the GDR establishment view of science and technology. A hymn to the Soviet Union's technological progress, celebrating the Faustian vision of humanity casting off the fetters of superstition and material deprivation, it echoes the 'Osterspaziergang' (*Faust*, lines 923-8) in its anaphoric repetition of clauses beginning with the preposition 'aus'. Braun's

relationship with Goethe was, however, soon coloured by ironic detachment.[31] 'Prometheus' (II 94, written in 1967) is a socialist 'updating' of Goethe's poem (Goethe 1998: I, 44-6), replacing individual rebellion by the work of the collective. Prometheus's impatience with the gods in Goethe's poem reappears in the guise of Braun's irritation with his contemporaries' placid faith in the state's progress towards socialism.

By the nineteen-seventies, Braun's relationship with Goethe was becoming increasingly complex. In an entry in his *Notate* entitled 'Die Goethepächter' (Goethe's Leaseholders), he comments scathingly on the official guardians of the cultural heritage: "They have turned Goethe's works into a workhouse for the education of the recalcitrant nation. Here they bustle around like schoolmarms, while we [i.e. writers] have our fun with him outside on the meadows of public life" (II 248). The sharpness of his tone reflects the difficulties Braun experienced in staging *Hans Faust* in Weimar in 1968. The play was a critical response to the politically motivated interpretation of Faust in the early decades of the GDR as an Adolf Hennecke-like activist, working tirelessly to build the socialist nation.[32]

The action[33] is set in the GDR in the early nineteen-fifties. Hans Hinze (alias Faust), a worker who is dissatisfied with the pace of reconstruction in the GDR, but too disillusioned to do anything about it, is taunted by the party official Kurt Kunze (alias Mephisto), in words echoing Faust's last monologue: "Nein, du gaffst zu, und schlingst / Kartoffelschalen! Auf dem freien Grund / Bedeckt von Trümmern, wimmelt / Das freie Volk in seinem Dreck. / Du willst was ändern? Im Geiste. Du / Begreifst nur dich, und dich noch falsch" (II 167). 'Enttrümmerung', or clearing rubble from the bombed cities, is the first step in reconstruction, and Hinze, who recognises he cannot achieve anything on his own, enters into a Faustian pact with the Communist authorities in order to work for a better future: "Solang ich nicht / Zufrieden bin, gehören wir / Zusammen, und der vorher aufhört / Den soll man einsperren" (II 171).

His plans for the industrial transformation of the country are, however, expressed in a vision which, like Faust's, goes beyond necessity and prudence to reveal not only Promethean hubris, but also a cult of vitalism, involving erotically charged violence towards the Earth: "Die Sonne. Eh,

schau dir das an. Das / Lassen wir vorerst wie es ist. / Hau ran Alte. Erst mal diesen Planeten. / […] Schön und vollkommen, die alte Vettel / Leg sie um! Siehst du das Korn, gelb? / Die Fabrik, dröhnt schon in den Ohren. / […] Da kommt eine Stadt hin!" (II 172). 'Das mitteldeutsche Loch', a vast open-cast coal mine and industrial building site (an allusion to the industrialisation of the Lausitz in Schwarze Pumpe, Hoyerswerda and Burghammer in which Braun himself participated as a young worker between 1958 and 1960), becomes the equivalent of Faust's dyke-building enterprise. After a lengthy struggle, Hinze achieves fulfilment, and is united with the workers in transforming the environment and modernising the country:

> Jetzt merk ich erst, daß ich lebe.
> Die Hände fühlen die Luft und die Füße den Boden.
> […]
> Brauchbarer Planet, Gestrüpp
> Aus Stahl und Kabeln. Mit zwei Griffen
> Löse ich Flüsse aus und setz ich Hügel in Gang.
> Schöne Natur, selbstfabriziert.
> […]
> Ich möchte mich
> Ausbreiten über die Landschaft
> Und sie bedecken mit Beton.
> *Eine* Arbeit reißt hundert zu mir
> Ich bin verknüpft
> Mit vielen, die mich halten
> Auf dieser Höhe. (II 201)

Nature is provocatively presented as a raw material to be used, shaped and beautified by individual and communal human (especially male) activity – in a process which approximates more to rape than consensual embrace. As the satirical pointing of the language suggests, his euphoria is as ill-founded as Faust's. The project he is working on is dropped by the authorities for reasons of economic necessity, and Hinze, Kunze and Marlies (alias Gretchen) are confronted with new problems. Working as a miner, Hinze succeeds in over-fulfilling his production target, but he alienates the workers by boasting of his personal achievements. The unity of individual and social development falls apart, and Hinze despairs, faced with the prospect of a joyless life and never-ending work:

> Ja, das hab ich gemacht, Jahre, Jahre. Eine Maßnahme schlägt die andre weg, eine Landschaft deckt die andre zu. Steht die Zeit still? Und jeder redet

sich ein: das, das ist was! und hält sich dran fest, jahrelang, und macht sich etwas vor, und merkt nicht: er selbst, selbst kommt zu nichts! (II 221)

However, the play ends with Hinze allowing himself to be persuaded to continue, in a project which is both that of socialism and the future of humanity. Sensitive to the ambivalences of the original, Braun thus recasts the Faustian narrative, as an expression of his struggle to retain faith in the socialist vision, accentuating its problematic individualistic and environmentally exploitative dimensions, but not ceasing to subscribe to the project of modernity.

Wolfgang Emmerich and others have shown how, in the course of the nineteen-seventies, this precarious balance between vitalist subjugation of nature and depiction of the damage and loss entailed by capitalism and the Marxist programme (a dramatisation of the consequences of its reduction to a lifeless object by Enlightenment rationalism) come under increasing strain in Braun's work (see Emmerich 1990, Jucker 1995b, Bothe 2004). The poem 'Durchgearbeitete Landschaft' (1971) ends with a characteristically ambivalent image, reflecting, in Katrin Bothe's words, an "almost desperate attempt" to reconcile ideal with reality:

Die Doppeldeutigkeit der Wendung "der Erde / Aufgeschlagenes Auge" als einer Landschaft, der Gewalt angetan und die zu neuem Leben erweckt wurde, ist sicherlich der authentische Volker Braun dieser Zeit: Beinahe verzweifelt sucht er noch, eine Harmonie zu stiften, setzt er hier auf die Rekultivierung 'verbrauchter' Braunkohle-Landschaften – auch dies eine trügerische Hoffnung angesichte der zerstörten Industrielandschaften, die die DDR hinterließ. (2004: 6)

'Material V: Burghammer' (VIII 66-8), written a decade later, in the Winter of 1982-3, draws on both 'Durchgearbeitete Landschaft' and Braun's early play *Kipper Paul Bauch* (1963-5). It alternates between critical detachment, expressed through bitter sarcastic commentary, and stubborn determination not to abandon his ideals and leave the country. Goethe's poem 'Ilmenau' (HA I 107-12), a lyrical self-reflection triggered by the encounter with a once familiar landscape, serves Braun as a formal model. But it also provides a point of contrast which emphasises the loss:

Wo es bei Goethe "grünet", vom "immergrünen Hain" die Rede ist, [...], da ist bei Braun die Landschaft "graslos", voller "Baumleichen " und "Aschewasser",

der “Himmel wie Kalk”. Der regenerierende, belebende Gang in die Natur ist nicht mehr möglich. (Bothe 2004: 10)

Ideological disillusionment is paralleled by formal change in Braun’s poems. The ‘Material’ poems, of which this is one, no longer integrate or adapt quotations to provide a historical contextualisation of Braun’s thought, but consist rather of a montage of disparate material embedded in a stream of consciousness, linking past and present. Their fragmentation suggests unfinished issues needing further thinking through, and reflects Braun’s loss of confidence in linear progression in history.[34]

Though Braun continued to propound the socialist ethos of humanity’s Faustian/Promethean self-realisation, its unwelcome social and environmental consequences featured increasingly prominently in his plays, poems and prose, in references to the destructive impact of brown-coal extraction, industrial pollution and the dangers associated with nuclear technology. A later version of the poem ‘Prometheus’ published in 1979 reflects a diminution of the poet’s confidence in man’s ability to determine his own future. The fire which Prometheus stole from the gods and gave to man becomes an image for nuclear technology, which the poet regards with increasing unease. By the 1980s, Braun, who had become a personal friend of Rudolf Bahro, was writing environmentalist polemics such as ‘Material VI: Die Mummelfälle’ (VIII 67f.) and ‘Verschönt den Wald’ (VIII 283-6). His work is in general, however, less concerned with the physical landscapes of devastation left behind by mining than with their symbolic meaning: the ‘waste land’ of modern society becomes an elaborate political allegory, and disillusionment with technological and political modernisation finds expression in increasingly apocalyptic scenarios. In the prose piece ‘Verfahren Prometheus’, written in 1982, Prometheus appears as man the inventor, engineer and manager, the driving force behind development and modernity. Intoxicated with his own success, but inflicting toil and suffering on millions in the course of his achievements, he is plagued by gnawing pains akin to those of the demigod, bound to the rocks, whose liver is picked at nightly by a punishing eagle:

> Bei der Berechnung der Transportsysteme für die Quader der Pyramiden spürte er zum erstenmal den Schmerz in der Leber, ungeachtet er gerade in dieser Epoche seines Lebens von einem Hochgefühl getragen war. Aber irgend etwas, auf seinen Spaziergängen die schweißigen Rücken der Völker in den endlosen Schnellstraßen Unterägyptens vor Augen, nagte an ihm. [...] Es war ein Rausch. (VIII 263)

Prometheus's final incarnation is Albert Einstein, who is unjustly remembered here as the father of nuclear physics and facilitator of the atom bomb, ignoring his opposition to the development of the hydrogen bomb after the war and his wider significance for twentieth-century physics. Writing at a time in the early eighties when tensions between the superpowers made nuclear war seem a real possibility, Braun could only see invention and technology as identical with the urge to destroy and oppress fellow men:

> Er hätte fortfahren können mit der Übung, aber unversehns gelang die Entdeckung, die seinem alten Namen Ehre machte d.h. ihn auslöschte, das Feuer der Feuer, dessen ungeheurer Schein die Morgenröte eines sagenhaften Zeitalters bedeuten konnte. Der Jubel- / der Entsetzensschrei des Planeten meldete, daß er nun unsterblich war. (VIII 265)

Goethe's significance for Braun may be described as that of a rubbing-post, or as a sparring partner in his protracted wrestling with the tendency of socialism's emancipatory impetus to degenerate into repression, and the destructive forces seemingly inherent in human civilisation. These themes are further explored in the narrative dialogue *Der Wendehals oder Trotzdestonichts* (1995) and the essay 'Dem Geyer gleich: Goethe und Kafka in der Natur' (1999). In the latter, Braun refers to *Faust* as a "nature poem of bourgeois society", offering insight into the self-destructive mechanisms of modern industrialisation. Globalisation, the latest manifestation of Faust's blindness, "is threatening to sever the link with our own bodies, the connection with nature, the very basis of our lives" (Braun 1999: 165). Faust is one of a number of images and motifs which undergo continuous development in Braun's work, through constant rereading and reworking of his own texts and those of other writers. Poems such as 'Harzreise im Winter', 'Ilmenau' and 'Wandrers Nachtlied' are, in Kathrin Bothe's words, "quite literally yardsticks, 'measuring instruments' which Braun uses to ground himself over the years, and which recall earlier phases of his life, in order to determine the degree of continuity and variation" (Bothe 2004: 27).

These examples illustrate how, as Robert Mandelkow has written, Goethe served as a model for writers in the nineteen-seventies and eighties in both his theoretical advocacy and his literary representation of nature:

> Goethe als dichterischer Gestalter und theoretischer Anwalt der Natur: Dieses Auslegungsmuster ist gerade in der jüngsten Phase seiner Rezeptionsgeschichte – nach einer Zeit der politischen Goethekritik und Goetheentfremdung – zu einem Thema von hoher Aktualität geworden. (1998: 233)

Mandelkow warned, quite rightly, that the resurgence of interest in Goethe's 'way of science' must not blind contemporaries to the dangers of fetishising nature again, by taking its alleged laws as a blueprint for human actions, and reviving the old ideology of nature in a new, environmental guise (p. 258). Yet there can be no doubt that as a mediator and synthesiser of proto-ecological traditions, Goethe has played a key role as a stimulus and point of reference for the crystallisation of unease with late twentieth-century society and the formulation of concerns regarding the integration of humankind in the continuum of nature.

[1] Karl Robert Mandelkow, 'Natur und Geschichte bei Goethe im Spiegel seiner wissenschaftlichen und kulturtheoretischen Rezeption', in Matussek 1998: 233-58, here p. 233.

[2] In his study of 'Green utopias in Germany', for instance, Jost Hermand discusses the influence of Goethe on Gustav Fechner, Ernst Haeckel and Wilhelm Bölsche (1991a: 70-4), Rudolf Steiner (pp. 94f.), Werner Heisenberg (pp. 117f.), Karl Jaspers and Carl Friedrich von Weizsäcker (pp. 120f.), Ernst Hass (pp. 122f.), Fritjof Capra (p. 165) Klaus Michael Meyer-Abich (p. 178) and Joseph Beuys (pp. 184f.).

[3] See Mandelkow 1998 and Wolfgang Kaempfer, 'Einige Bemerkungen zur Geschichte des Problems' (Glaser 1986: 15-22).

[4] It is salutary, Mandelkow suggests, to remember that if Goethe resorted to the study of nature as a sphere principally characterised by sublime calm and security, this was not least because of the respite it offered from the chance, arbitrariness and disorder of contemporary politics.

[5] Jost Hermand, 'Freiheit in der Bindung: Goethes grüne Weltfrömmigkeit' (1991b: 29-51).

[6] With the exception of *Faust*, for which line numbers are given, Goethe is cited in the following from the 14-volume *Hamburger Ausgabe* edited by Erich Trunz (Goethe 1998), with volume and page numbers.

[7] Goethe's conception of scientific investigation is perhaps most succinctly summed up in a short text entitled 'Bedenken und Ergebung', first published in 1820 (XIII 31).

[8] Kreutzer quotes (p. 386) the aphorism from 'Makariens Archiv' in *Wilhelm Meisters Wanderjahre*: "Das ist eben das größte Unheil der neuern Physik, daß man die Experimente gleichsam vom Menschen abgesondert hat und bloß in dem, was künstliche Instrumente zeigen, die Natur erkennen, ja, was sie leisten kann, dadurch beschränken und beweisen will." (VIII 473)

[9] The phrase, which is found in *Wilhelm Meisters Wanderjahre* ("Es gibt eine zarte Empirie, die sich mit dem Gegenstand innigst identisch macht und dadurch zur eigentlichen Theorie wird", VIII 302), signifies allowing natural entities to disclose themselves on their own terms, in their complex and dynamic interrelations with other entities and phenomena (see Rigby 2004: 35f.).

[10] The volume of essays *Goethe's Way of Science* (Seamon and Zajonc 1998), which contains new scientific studies conducted on Goethean principles in a range of disciplines, alongside chapters on Goethe's science in the historical context, shows the continuing importance of the poet.

[11] An earlier anthology, *Deutsche Landschaften* (Schneider 1981) includes a comparable range of Goethe texts – letters from Goethe's *Werther*, descriptions and drawings of the Alps from the *Tagebuch in der Schweiz 1775*, the poem 'Harzreise im Winter', the essay 'Über den Granit', passages from the *Reise in die Schweiz 1797*, Goethe's *Novelle*, and 'Lenardos Tagebuch' (from *Wilhelm Meisters Wanderjahre*). The threat to nature today, Schneider

argues cautiously in his introduction, “permits us to see the historical circumstances of its aesthetic idealisation in sharper focus, ant to avoid jumping to hasty conclusions” (p. vi).

[12] In *Ist der Mensch zu retten? Vision und Kritik der Moderne in Goethes‘ Faust’* (1994), Kaiser sums up the argument of his earlier book *Mutter Natur und die Dampfmaschine* (1991): At the very moment when humanity was setting out on the path of scientific objectivisation and technological domination of the natural world, it evolved a new, complementary, sentimental life ideal. Success in planning and manipulating the environment led men to long for things spontaneous and free of external control: on the one hand, the heart, feelings and imagination, and on the other nature as an autonomous sphere in which growth energies circulated and interacted freely, and as the loving, maternal origin of all life. Though the ‘modern’ sentimental relationship with nature predated the industrial revolution in Germany, “mother nature and the steam engine appeared simultaneously on the stage of history, turned away from one another, but intimately connected” (1994: 21f.).

[13] My comments in the following are largely based on Matussek’s essay ‘Formen der Verzeitlichung. Der Wandel des Faustschen Naturbildes und seine historischen Hintergründe’ (Matussek 1998: 202-32), in which he revisits and further systematises the conceptions of nature identified in his earlier monograph.

[14] According to Matussek, the ‘Osterspaziergang’ passage “foregrounds Faust’s selective compositional arrangement so blatantly that it is revealed as a means to an end, and casts doubt on the implied reconciliation of nature and history”. The arbitrary nature of Faust’s harmonisation is evident from the start in the pontificating gesture with which he directs Wagner’s gaze from the hill they are standing on, and the conventional images he uses (1998: 226).

[15] 200,000 copies were sold within two years, and a further 100,000 copies when the paperback edition in the ‘Fischer Alternativ’ series came out in 1978.

[16] Marshall Berman, ‘Goethe’s *Faust*: The Tragedy of Development’, in Berman 1983: 37-86, here p. 38.

[17] See Erich Trunz’s commentary on *Faust* in the Hamburger Ausgabe (III: 713).

[18] Jeffrey Barnouw has described the play as “notoriously ambiguous” (1994: 34), and Rigby comments similarly on the “many uncertainties which Goethe leaves us with” (2004: 213).

[19] As Jeffrey Barnouw puts it: “In his expansive ‘striving’ Faust embodies an indifference to our vulnerability and fallibility that is too often attributed misguidedly to a ‘Faustian’ ethos of technology.” (1994: 40)

[20] Whereas Lukacs had argued the last Act of *Faust* was a tragedy of capitalist development in its early, heroic industrial phase, reflecting its internal contradictions (see his ‘Faust-Studien’, in Lukacs 1950: 200-39), Berman suggests Goethe had socialism in mind: he points to the poet’s recorded interest in the technological utopias of the French Saint-Simonian movement in the second half of the eighteen-twenties, when he was writing this part of the play. However, Kaiser argues that Goethe’s attitude towards the Saint-Simonian fusion of socialism with technocracy was no less ambivalent than his views on the impact of capitalist

industrialisation. Citing a conversation of the poet's with Eckermann on 30 October, 1830, he asserts: "Goethe turned his back on Saint-Simonism with a shudder, and it is likely that this shudder is present in the last phase of his work on *Faust*." (1994: 62 and note 32, p. 114)

[21] Harro Segeberg, 'Technik und Naturbeherrschung im Konflikt I. Johann Wolfgang von Goethes *Faust. Zweiter Teil* V. Akt (1832) und die Modernität vormoderner Technik' (1987a: 13-54).

[22] Segeberg cites the use of the term 'Weltvernutzung' (destructive utilisation) by the *Faust* commentator Max Kommerell in 1939, and remarks: "Today, we would speak of the plundering of the planet."(p. 46)

[23] Hanns Cibulka, *Sanddornzeit. Tagebuchblätter von Hiddensee* (Halle-Leipzig: Mitteldeutscher Verlag 1971). References in the following are to the reprint in Cibulka 1991 (pp. 5-73).

[24] Hanns Cibulka, *Swantow. Die Aufzeichnungen des Andreas Flemming*, Halle-Leipzig: Mitteldeutscher Verlag 1982. References are to the reprint in Cibulka 1991 (pp. 75-171).

[25] As a result of the controversy surrounding the publication of extracts in the journal *Neue deutsche Literatur* in 1981, all 150 000 copies of the book edition which appeared the following year sold out in three days (Heise 1999: 6).

[26] Klaus Modick, *Moos. Die nachgelassenen Blätter des Botanikers Lukas Ohlburg*, Zurich: Haffmans 1984. References in the following are to the second edition (Modick 1996).

[27] The name is an homage to Karl Robert Mandelkow, whose lectures Modick attended as a student at the university of Hamburg, but the echo of Benoît Mandelbrot, author of *The Fractal Geometry of Nature* (1982) may also be intentional.

[28] Sabine Jambon has noted the parallel with William Harvey's seventeenth-century treatise on this subject (1999: 119f.).

[29] See Reid 1990 on *Hans Faust* and *Hinze und Kunze*, and Grauert 1995: 166-206 on *Iphigenie in Freiheit*.

[30] Volker Braun is cited here and in the following from the *Texte in zeitlicher Folge* (Braun 1992ff.).

[31] See Reid 1990: 151. 'Der Ostermarsch' (II: 76) is a slightly later poem alluding to the scene 'Vor dem Tor' (*Faust*, lines 808-1177), by now in clearly ironic intention.

[32] Marshall Berman notes that the Marxist-Leninist enthusiasm for grand technological projects such as the notorious White Sea Canal project of 1931-3, Stalin's first showcase development (since described in its tragic absurdity by Solzhenitsyn in *The Gulag Archipelago*), had led to a special identification with Faust the engineer and the developer in the early years of the GDR (1983: 76).

[33] Though the manuscript was rediscovered in 1988 in the archives of Braun's West German publisher, Suhrkamp, and is advertised as available as a theatre script (Braun 1989), it remains unpublished. The following remarks therefore refer to *Hinze und Kunze*, Braun's revised version of the play dating from 1973.

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[34] 'Material 1: Wie herrlich leuchtet mir die Natur' (V 85-8) shows Braun unable to find the elusive 'stuff of life' in nature or nature poetry. Goethe's 'Mailied' and Paul Gerhardt's 'Sommergesang' appear grotesquely implausible when juxtaposed with the urban landscape (including a *Goetheplatz*) and recollections of instances of alienation. 'Das innerste Afrika' (VIII 87-90) is a key poem from the mid-eighties, in which blacks and women represent utopian alternatives to GDR bureaucracy and the calcification of modern civilization, and Africa becomes a metaphor for democratic socialism and a humane way of life with an ecological dimension. Fragments of Mignon's song 'Kennst du das Land' (HA VII 145) are similarly incorporated alongside passages from Hölderlin and allusions to Rimbaud.