

Nature is the Poetry of Mind, or How Schelling Solved Goethe's Kantian Problems

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In 1853, two decades after Goethe's death, Hermann von Helmholtz, who had just become professor of anatomy at Königsberg, delivered an evaluation of the poet's contributions to science.¹ The young Helmholtz lamented Goethe's stubborn rejection of Newton's prism experiments. Goethe's theory of light and color simply broke on the rocks of his poetic genius. The tragedy, though, was not repeated in biological science. In Helmholtz's estimation, Goethe had advanced in this area two singular and "uncommonly fruitful" ideas.² The poet recognized, first, that the anatomical structures of various kinds of animals revealed a unity type underlying the superficial differences arising from variability of food, habit, and locality. His second lasting achievement was the related theory of the metamorphosis of organisms: the thesis that the various articulations within an organism developed out of a more basic kind of structure—that, for instance, the different parts of plants were metamorphosed leaves or that the various bones of the animal skull were but transformed vertebrae. These two general morphological conceptions, according to Helmholtz, grounded the biology flourishing at

mid-century. Goethe came to these ideas, Helmholtz shrewdly maintained, as the result of a poetically intuitive conception (*anschauliche Begriffe*).³ He described, for instance, Goethe's immediate recognition, while playfully tossing around a sheep's skull on the Lido in Venice, that the fused bones of the battered cranium consisted of transmuted vertebrae. This experience resulted in the poet's vertebral theory of the skull, which became a standard conception in later morphology.⁴ Poetic intuition thus liberated an idea initially embedded in matter and made it available to the analytic understanding of the scientist.

Forty years later, in 1892, at the meeting of the Goethe Society in Weimar, Helmholtz returned to reexamine the poet's scientific accomplishments, and, it would seem, implicitly his own; for by the end of his career, Helmholtz himself had achieved a position in German culture only a few steps below that of Goethe.⁵ His evaluation of Goethe's achievements in physical science was now more complex than his earlier assessment had been. While allowing that Goethe too rapidly dismissed Newton's analyses, Helmholtz admitted the considerable difficulty in experimentally finding one's way to an adequate theory of light and color.⁶ And remarkably, in this second essay, he conceded that Goethe was intuitively right to have rejected Newton's particulate theory of light.⁷ Had Goethe but known of Christian Huygens's wave theory, Helmholtz suggested, he might well have moved toward a more satisfactory conception. Helmholtz reinforced his earlier judgment about the significance of Goethe's morphological ideas, and maintained that the poet's acute proposals led to an accelerated acceptance of Darwin's theory of evolution, particularly in Germany.

After fifty years of a career that ranged from physics to physiology, from optics to theories of artistic representation, Helmholtz more sensitively assessed Goethe's aesthetic approach to nature. In this second essay, he emphasized a principle operative in Goethe's work that I believe served as a fundamental organizing conception in the philosophy of the early Romantics. This was the aesthetic-epistemic principle of the complementarity of the poetic and scientific conceptions of nature. Helmholtz came to agree with Goethe that "artistic representation" provided another way into the complexities of the physical world.⁸ Both aesthetic intuition and scientific comprehension drove down to the type, to the underlying force that gave form to the surface of things. Exercising aesthetic intuition within the realm of science, therefore, would not introduce anything foreign, but only aid the scientist in comprehending the fundamental structures and powers of nature.

Helmholtz was unaware of the metaphysical and epistemological barriers Goethe had to overcome in order to establish the principal of complementarity. Once established, the principal became instrumental, not only in smoothing the way for Darwin, but allowing Goethe himself to move along the path on which the Englishman would later travel. The barriers that Goethe initially encountered derived from Kant. As the result of urging by his friend, the poet Friedrich Schiller, Goethe became grudgingly convinced of the Kantian epistemology, which seemed to block access to the real world. The escape route, however, came through the intellectual aid provided by another friend, the young idealist philosopher Friedrich Schelling. Goethe and Schelling became quite close, and each had a marked impact on the thought of the other. Schelling led

his older mentor beyond Kant and ultimately to the kind of evolutionary theory that Kant had rejected; Goethe, in his turn, helped anchor Schelling's drifting idealism. Let me initially make clear the dimensions of the Kantian obstacles before I undertake to examine how Goethe's young protégé showed the way back into the heart of nature.

Goethe's Kantian Problems

By reason of inveterate attitude and poetic disposition, Goethe strongly inclined toward realism. His poetry expressed the immediate experience of nature and attempted to recreate that experience for the reader. During the 1780s, while a civil administrator for Carl August, duke of Saxe-Weimar-Eisenach, the young poet became devoted to Spinoza. Under the tutelage of his friend Johann Gottlieb Herder, Goethe, in the company of the enticing Charlotte von Stein, undertook a systematic study of the philosopher, who inspired him to explore empirical phenomena in order to discover those adequate ideas that determined the essential structures of natural objects. Archetypes of plants and animals, Goethe became convinced, animated nature; and he believed scientific experiment and systematic observation might bring those structures to intuitive recognition. This kind of rationalistic realism, though, met a formidable challenge.

In 1789, Goethe undertook a study of Kant's first *Critique* with the help of Karl Leonhard Reinhold, the principal supporter of Kant in the philosophy faculty at Jena.⁹ The poet, though, stumbled over the book's principal epistemological position, namely that an impenetrable barrier stood between the mind and the world beyond. Initially, as

he recalled, “sometimes my poetical abilities hindered me, sometimes my mundane understanding, and I felt I had not gotten very far.”¹⁰ Goethe’s marginalia and notes indicate clearly enough that he understood Kant’s claim; he did not appreciate, though, the rationale for the claim.¹¹ A few years later, his friend Friedrich Schiller would finally convince him of the validity of the Kantian epistemology. But this only exacerbated his frustration, since he remained constitutionally disposed to realism. He felt nature directly and immediately, and expressed that intimate experience in the flood of poetry pouring from his pen. Thus the question became poignant: How could one have an immediate and aesthetically responsive contact with nature existing beyond mind if the Kantian position held firm? For Goethe, this unpleasantness quickly spread beyond the aesthetic to the scientific.

While traveling in Italy during the two-year period 1786-1788, Goethe became convinced that he had solved a deep problem in biology, and when he returned to Weimar he began working on a tract to explain his discovery. His *Metamorphose der Pflanzen* (1790) describes the development of plants in terms of an ideal structure that expresses the essence of all plants. Yet this archetype, as Goethe construed it, served not only as an ideal type but also as a force actually productive of natural organisms.¹² Over this discovery the Kantian pall likewise fell: How could one be sure the archetypal idea corresponded with anything real, with a force actually resident in nature?

Goethe’s hesitating difficulties with Kant, however, became initially blanketed in a cloud of enthusiasm when he took up, in 1790, the newly published *Kritik der Urteilskraft* (*Critique of judgment*). He thought that this new critique specified in a most perspicuous

way the connection between aesthetic judgment and biological judgment. It showed explicitly what Goethe knew implicitly to be right, namely, the existence of an intimate relationship between the realm of art and the realm of science. The *Critique* also offered to Goethe the confirmation that the work of art and the product of nature both existed in their own right and for themselves. Organisms might be shaped by the external environment, but their internal structures were neither explained nor justified by that environment nor by any other external cause, human or divine. The *Critique's* analysis also freed art from the oppression of final causes: art objects had aesthetic value independently of their moral worth, theological subject, or decorative character.¹³ Yet in the midst of philosophical plenty, Goethe again collided with the Kantian barrier, now blocking two avenues. Kant would allow archetypal ideas—such as that of the ideal plant or the vertebrate structure—and even grant the naturalist could assume these archetypes had creative efficacy; but they could only function, according to Kant, *a/s ob*, that is, they could only serve as regulative heuristics. We might assume an archetypal intellect created natural objects, but this assumption could have no purchase on nature or valid science. Goethe yet believed these ideals operated as real causes. Further, the Königsberg sage had refused to recognize a natural process of which the poet had become convinced—the evolutionary transition of species.

These, then, are some of the difficulties that Goethe faced. The individual who did the most to convince him of the power of the Kantian view was his close friend, the poet Friedrich Schiller.

Schiller's Kantian Advocacy

Goethe and Schiller differed in temperament and intellectual attitudes, approaching common issues from quite distant poles. As the older poet later recalled, "Schiller preached the gospel of freedom; I wanted to preserve the rights of nature."¹⁴ This simple, but trenchant, characterization crystallized several facets of their intellectual differences: Schiller displayed a kind of religious fervor, Goethe a cooler, almost legal demeanor; Schiller emphasized the creative freedom of the artist, Goethe the constraints imposed by nature; Schiller looked inward, Goethe outward; Schiller was a Kantian idealist, Goethe—initially at least—a Spinozistic realist. But as their friendship matured, their ideas and attitudes began to migrate toward more common ground.

After their first serious intellectual encounter, in July 1794, Schiller sent him a remarkable letter diagnosing their intellectual and artistic differences. The analysis flattered Goethe for his genius, but yet did not unduly dim Schiller's estimate of his own virtues. The letter suggested how intellects of such diverse carriage might yet travel the same path. He wrote:

What is difficult for you to realize (since genius is always a great mystery to itself) is the wonderful agreement of your philosophical instincts with the pure results of speculating reason. Certainly at first, it seems that there could not be a greater opposition than that between the speculative mind, which begins with unity, and the intuitive, which starts from the manifold [of sense]. If the first seeks experience with a chaste and true sense, and the second seeks the law with a self-active and free power of thought

[*Denkkraft*], then they cannot fail to meet each other half way. To be sure, the intuitive mind is only concerned with the individual, the speculative only with the kind [*Gattung*]. But if the intuitive has genius and seeks in the empirical realm the character of the necessary, it will always produce the individual, but with the character of the kind; and if the speculative mind has genius and does not lose sight of experience—which that sort of mind rises above—then it will always produce the kind but animated with the possibility of life and with a fundamental relationship to real objects.¹⁵

Schiller further suggested that Goethe had a southern, virtually Greek, temperament, which could only have realized its potential after coming into contact with original, ancient sources. The lived reality allowed his imagination, “in a rational fashion, to give birth internally to a Grecian land.”¹⁶ Yet after this rational re-creation occurred, according to Schiller, it had to be turned back into intuitions and feelings, which would then guide artistic production.¹⁷

Shortly after he penned his letter, Schiller elaborated these categories of the intuitive mind and the speculative mind in his great treatise *Naive und sentimentalische Dichtung* (*Naive and sentimental poetry*, 1795). He pictured Goethe as the naive poet, who intuitively responded to nature, and himself as the sentimental, who had to struggle reflectively with ideas in the execution of his art. Schiller derived inspiration for his diagnosis from Kant’s third *Critique*, a book which both he and Goethe (quite independently) had been reading since its appearance four years earlier. The analysis depended on Kant’s notion of genius, which the *Critique* describes in this way: “Genius

is the talent (natural gift) that gives the rule to art [*Kunst*]. Now since talent is an inborn, productive ability of the artist, it belongs to nature. So we might also express it this way: Genius is the inborn mental trait (*ingenium*) through which nature gives the rule to art.”¹⁸

The definition suggested to Schiller that ineffable rules for the creation of beauty arose from the artist’s nature, which was of a piece with nature writ large. In producing a painting or sculpture, for instance, the artist of genius plays with certain forms in imagination. In this free play, according to Kant, certain expressions will seem aesthetically right; and the artist will experience aesthetic pleasure as he or she renders the artistic object. The harmony of forms and the pleasure they induce would be, in Kant’s estimation, the outward signs of non-specifiable rules of beauty. The naive artist, according to Schiller, follows these rules of beauty immediately and unreflectively, his pen or brush being guided by the sheer sense of aesthetic rightness. The difference between the naive poet and the sentimental poet, as Schiller reconstructs their activities, lies not, therefore, in the use of ideas—both employ ideas that at a deep level join their natures with external nature; it is, rather, that the naive poet does not reflectively struggle with the ideas in the manner of the sentimental poet.

Before his contact with Schiller, Goethe had inchoately assumed that the beauty of nature simply rushed into his eyes and gushed out of his pen. Schiller began teaching him that constructive concepts intervened, that his aesthetic appreciation of nature required the creative potency of ideas, of rules of beauty, even if those rules, as implied by Kant’s definition of genius, lay below the limen of consciousness, buried deeply within the nature of the artist. While the metaphysics of this implication could

have no justification within the confines of Kant's own epistemology, both Schiller and Goethe resonated to it. That metaphysical conviction lay behind Goethe's aphorism that "an unknown, law-like something in the object corresponds to an unknown, law-like something in the subject."¹⁹ This kind of metaphysics enticed Goethe the way several of his women friends did at this time: with great allure and seduction, with the poet giving way even while recognizing the impropriety of his indulgence.

Goethe's Morphology

In 1794, just after he had established his friendship with Schiller, Goethe composed a short essay on morphology that showed the clear impress of Kant's third *Critique* and the discussions he had with his new friend. In his *Versuch einer allgemeinen Vergleichungslehre (Essay on a general theory of comparison)*, Goethe highlighted a particular aspect of Kant's proposal concerning teleological judgment, namely, that organisms, while they displayed an internal teleology, should not be regarded as elements of an external teleology—final causes in a more cosmological sense. In this Kantian light, Goethe urged in his essay that the anatomist reject the notion that plant and animal structures had been designed for divine purposes, rather that the researcher should understand those structures as having their *raison d'être* in the functional organization of the entire creature. To adapt Voltaire's piquant example, we should not marvel at a superior wisdom that supposedly designed the bark of the cork tree so fine wines could be preserved; rather we should try to understand how that part functioned within the organization of the tree itself and how it was affected by

its geographical circumstances. The relationship of organisms to their environment, according to Goethe, had to be regarded as non-intentional: the environment had an impact on creatures, changing their outward shape to conform to particular requirements, giving an organism “its purposiveness in respect to that external environment [*seine Zweckmässigkeit nach aussen*].” But that was only part of the story; for the internal structures of plants and animals showed another force at work. There was also an “inner kernel [*innere Kern*]” that provided a general corporeal pattern for an organism, which extrinsic forces might particularize in different ways: the seal, for instance, had a body formed by its aquatic environment, but its skeleton displayed the same general configuration as that of land mammals. Goethe thus concluded:

The ultimate form [of a plant or animal] is constructed likewise from an inner kernel, which is given its particularity through the determination of external elements. In this way, an animal obtains its purposiveness in respect to the outer environment, since it is formed from the external as well as from the internal.²⁰

Living organisms thus derived their structures from two forces, an intrinsic one, which provided a general pattern [*Muster*], and an extrinsic one, which shaped an organism to its particular circumstances. This latter, environmental force, Goethe conceived much as Lamarck and Darwin would, namely, as a direct effect on the organism that adapted it to particular circumstances (“purposiveness in respect to that external environment”). Goethe had replaced divine teleology with natural causality, though a

causality that yet retained a telic feature. Some time later, Georges Cuvier and Richard Owen would reach comparable conclusions, though they still detected the ultimate intentions of the Creator expressed in such proximate causes.

From 1794 through the turn of the century, Goethe composed several other essays in morphology, most reflecting his engagement with Kant. For instance, in 1796, he worked on a series of lectures—undelivered—that would sketch out his full conception of morphology. These *Vorträge, über eine allgemeine Einleitung in die vergleichende Anatomie* (*Lectures on an general introduction to comparative anatomy*) argued that the theory of the archetype did not rest on mere hypothesis, since it followed from “the concept of a living, determined, independent, and spontaneously effective natural being.”²¹ Such a being would have its parts mutually dependent upon one another and comprehensible only in relation to the whole. Now, of course, Kant held much the same, though he specified that such a teleological concept, while characteristic of the human mode of thought, was only regulative, not determinative of external nature. For Kant the concept of a living being simply could not function—as Goethe thought it must—in authentic science, which could only refer to mechanical causes in the explanation of natural phenomena. Goethe used the Kantian framework, nonetheless, to picture another conception, which he put this way:

We are thus assured [by reason of our concept] of the unity, variety, purposiveness, and lawfulness of our object. If we are thoughtful and forceful enough to approach our object and to consider and treat it with a simple, though comprehensive mode of representation [*Vorstellungsart*],

one that is lawfully free [*gesetzmässig-freien*], lively, yet regular—if we are in a position, employing the mental powers that one usually calls genius (which often produces rather dubious effects), to penetrate to the certain and unambiguous genius of productive nature—then, we should be able to apply this meaning of unity in multiplicity to this tremendous object. If we do so, then something must arise with which we as men ought to be delighted.²²

In this turbulently flowing passage, several eddies of Kantian meaning form around the bed rock of Goethe's instinctive realism. First, he suggests here that the necessary concept we have of living beings assures us of their fundamental unity of type, a unity that nonetheless permits great variety in realization. Second, he thinks of this concept as being lawfully free (*gesetzmässig-freie*), a phrase and conception that seem to come straight from Kant's description of aesthetic judgment as stemming from "the free lawfulness of the understanding [*die freie Gesetzmässigkeit des Verstandes*]."²³ Finally, when Goethe refers to the "productive genius of nature," he obviously plays off of Kant's own definition of genius as "nature giving the rules to art." And he seems to suggest two aspects of this notion: that archetypes in nature constitute a productive force bringing particular organisms into existence; and that these archetypes are comprehended by the artist in the creation of beautiful objects (a matter considered below).

Kant, of course, considers aesthetic judgments, as well as judgments of intrinsic teleology, not as determinative but as reflective; and such reflective judgments in the

case of organisms (i.e., teleological judgments) are regulative, that is, virtually hypothetical. Yet the archetype for Goethe, as he here thinks of it, is not merely a regulative consideration, since it is the same one that the productive genius of nature employs—to use Kantian terms, it would be *determinative*. Goethe's residual Spinozism, according to which productive ideas reside in nature, imparts a decided turn to his newly adopted Kantianism, a twist that most Kantians would find simply confusing if not confused. After all, why should we assume that our mode of conceiving nature has purchase on nature herself?

The answer to this question would be worked out by a young philosopher whom Goethe would adopt virtually as a son, Friedrich Wilhelm Joseph Schelling. Shortly after his arrival in Jena during late spring of 1797, Schelling became entangled with a group of poets, historians, and critics who were forming what became known, according to their own designation, as the Romantic circle. While Goethe initially stood at the periphery of this circle, he was drawn rapidly into its embrace.

The Gathering of the Romantics at Jena

Goethe realized that the university at Jena suffered a tremendous loss in 1794 when Karl Leonhard Reinhold accepted a position at Kiel. The Geheimrat found, however, opportunity rapidly to make good the departure with the man whom Kant himself initially admired, Johann Gottlieb Fichte. The philosopher's first weeks at the university produced tremendous excitement. He and Schiller hit it off immediately, and Goethe took to reading the new arrival's works. Goethe's grasp of the philosophy

impressed Fichte: “He [Goethe] has represented my system so succinctly and clearly that I myself could not have done it more clearly.”²⁴ During his five years at Jena, Fichte raised the philosophical stakes of discussion; and he made Goethe aware—as much through force of a powerful personality as through his difficult ideas—of the liabilities of crucial aspects of the Kantian philosophy, especially the *Ding an sich*. By 1799, Fichte’s relationships with other faculty members at the university, many jealous of his standing and irritated by his imperious attitudes, became so frayed as to leave him dangerously dangling before less sophisticated detractors. A devoted cadre of students stayed loyal, but the fraternities continued to give him a hard time for his grouching about their rowdiness. Fichte finally stumbled in his relationship to Carl August when a charge of atheism was brought against him. On this occasion, Goethe (who had some sympathy for the philosopher’s religious position)—even Goethe could not save Fichte from himself. Fichte was dismissed from the university in June 1799.

Two years after Fichte’s arrival in Jena, August Wilhelm Schlegel moved to the city, carrying with him many literary ambitions, as well as his new wife Caroline Michaelis Böhmer Schlegel and her daughter Auguste from a previous marriage. He had been recruited to join Schiller and Goethe as a co-worker on the new journal *Die Horen*. In 1798, after a falling out with Schiller, Schlegel became professor at the university. Goethe immediately discovered in this literary historian and critic one whose aesthetic judgment coincided with his own, even if he were initially wary of his new friend’s “democratic tendencies.”²⁵ They conferred about Schlegel’s translations of Shakespeare, and Goethe found in this genial man a literary confidant second only to

Schiller. Schlegel, for his part, came, in the words of his brother, to “worship” Goethe.²⁶ About a month after August Wilhelm and Caroline Schlegel had settled in Jena, Friedrich Schlegel—more volatile, brash, and passion-ridden than his older brother—set up house not far from the family. Goethe had read with great interest the younger Schlegel’s collection of essays on Greek and Roman poetry, which had a preface that used Schiller’s *Naive und sentimentalische Dichtung* to formulate the basic meaning for the Romantic mode of thought.²⁷ Goethe soon invited this exuberant historian of ancient literature to accompany him on afternoon walks. Though Friedrich Schlegel, too, became an admirer of Goethe, his relationship to Schiller went quickly sour when he published some political tracts in the republican journal *Deutschland*, and then added personal insult to these political injuries with essays critical of Schiller’s poetry and judgment. The suspicion that Caroline Schlegel gave succor to these attitudes was hardly amiss; and Schiller, in his turn, cultivated a hearty disdain for “Madam Lucifer.” In June 1797, as his social circumstances became quite uncomfortable in Jena, Friedrich left for Berlin, where he met and embraced the friendship of Friedrich Daniel Schleiermacher, who had begun on that philosophical-religious trajectory that would make a lasting impact on Protestant thought in Germany. Friedrich returned to Jena in 1799, shortly followed by Dorothea Mendelsohn Veit, the woman he would live with in imitation of Goethe’s arrangement with his mistress Christiane Vulpius. The complexities of these social configurations did not prevent the renewal of friendship between the older man and his younger admirer. In January 1800, Friedrich began serializing his *Gespräch über die Poesie (Dialogue on Poetry)* in the brothers’ journal

Athenaeum. In that monograph, he maintained that only Goethe could stand with such “Romantic” poets as Cervantes and Shakespeare. Indeed *Wilhelm Meister* had achieved that ideal of beauty, a fusion of classical and Romantic styles, so as to make it, in Friedrich’s estimation, a tendency of the age, along with the French Revolution and Fichte’s *Wissenschaftslehre*.²⁸ Shortly after Goethe’s death, Heinrich Heine judged, with some hyperbole, that the great poet “had owed the largest part of his fame to the Schlegels.”²⁹ And so, by virtue of being the type-specimen, Goethe’s work became, nolens-volens, definitional of the Romantic ideal.

The Romantic circle achieved philosophical completion when the twenty-three-year old Friedrich Schelling arrived in Jena to take up the post that the combined forces of Fichte, Schiller, and Niethammer strove to make possible. Goethe was at first hesitant because he suspected a thinker too strongly enticed by the idealistic unreality conjured by Fichte. But when he met Schelling at a party thrown by Schiller, he came away singularly impressed with this very young philosopher, who showed a knowledge of real natural science, particularly Goethe’s own works, and who seemed untainted by the kind of Jacobin inclinations displayed by Fichte. Goethe wrote Privy Counselor Voigt to extol this new star on the philosophical horizon:

Schelling’s short visit was a real joy for me. For both him and us, it would be a wish realized were he to be brought here. For him, so that he might enter an active and energetic company—since he has had a rather isolated life in Leipzig—a company in which he might be guided in experience and experiments, and prosecute an enthusiastic study of

nature, so that his beautiful mental talents might be applied with appropriate purpose. For us, the presence of so estimable a member would help us tremendously, and my own work would be considerably advanced with his aid.³⁰

Goethe and Schelling grew quite close during the six years of the philosopher's stay in Jena. Caroline regarded the poet's solicitude as quite paternal. So when Schelling declined into a depressive melancholy after the death of Caroline's daughter Auguste, the grieving mother felt she could ask the great man to care for her lover during the Christmastide of 1800-1801. Goethe also facilitated the divorce between Caroline and August Wilhelm Schlegel, so that she and Schelling could marry. The deep personal relationship between Goethe and Schelling inevitably affected their intellectual lives.

Goethe and Schelling: Nature as the Poetry of the Mind

Goethe is usually portrayed as utterly rejecting the scientific and metaphysical aspirations of the Romantics.³¹ Historians who make this judgment do so by considering under the rubric of "Romantic writer" such diverse individuals as Schelling, Henrik Steffens, Gotthilf Heinrich Schubert, and Lorenz Oken. Goethe certainly thought the latter three often indulged in Schwärmerei and obscurity.³² But those individuals who might carry (or have pinned on them) the banner of Romanticism expressed distinctive philosophical views and dispositions. Goethe reacted to each differently, and his feelings for each altered over time. When the Schlegels adopted more orthodoxly

religious sentiments after the turn of the century, Goethe became disappointed, suspicious, and irritated with them. For Schelling, though, he harbored quite warm affection, which hardly abated over the years. And his enthusiasm for the young philosopher's ideas continued to grow from their first meeting until the time when Schelling left Jena in 1803. Thereafter he kept up with Schelling's changing philosophical interests, always indicating positive regard, if not complete acceptance.³³ In the near term, though, the young philosopher secured the lines of Goethe's drifting metaphysical views, providing many of his instinctive attitudes hard rational demonstrations, while shifting others into more dangerous currents. And the reciprocal pull on Schelling's own philosophy was hardly less dramatic.

During Schelling's years in Jena, he and Goethe met frequently to discuss philosophical, scientific, and artistic matters. Goethe—the poet, scientist, and Weimar genius—like a whirlpool of creative energy carried the young philosopher into the center of his interests and flooded him with re-orienting conceptions. His diverting power had its effect almost immediately. In the winter term 1798-1799, Schelling began lecturing at Jena on *Naturphilosophie*, lectures which would yield during Eastertide his *Erster Entwurf zu einem System der Naturphilosophie* (*First sketch of a system of nature philosophy*). In November, he and Goethe met to discuss the character of *Naturphilosophie*, and particularly the problems of organic metamorphosis.³⁴ After the publication of his lectures, Schelling, under the influence of Goethe, felt the need to clarify and develop an aspect of *Naturphilosophie* that he had neglected, namely the role of experiment and observation. During a particularly intense period, from the

middle of September to the middle of October 1799, the two met almost daily to discuss this problem, and together they spent almost a week going over Schelling's *Einleitung zu dem Entwurf eines Systems der Naturphilosophie* (*Introduction to the sketch of a system of nature philosophy*).³⁵ Schelling proclaimed that the conversations had produced a great "florescence of ideas" for him.³⁶ The *Einleitung* stated unequivocally the necessity of experiment in discovering the laws of nature. And indeed, Schelling—the knight errant of idealism—proclaimed that "all of our knowledge stems from experience."³⁷ It is hard to doubt that Goethe did anything but stimulate, promote, and encourage this appeal to experience as the true Excalibur of natural science. The *Einleitung* clearly marks the deviant path of Schelling's idealism, which led him, within two years, to develop the kind of Spinozistic objectivism that Fichte scorned. Though many diverse pressures operated on Schelling, giving his thought direction, there can be little doubt that powerful Goethean forces pulled him sharply toward that ideal-realism he would finally espouse.

Goethe, as well, shifted orientation; he began to rethink the relationship between art and science, especially their underlying connection in an identity between mind and nature. He had begun moving in that direction, as we have seen, due to his reading of Kant and the insistent ideas of his dear friend Schiller. Already in 1796, he had pricked the ears of Friedrich Jacobi with the remark that his friend would "not find me any more the rigid realist."³⁸ Schelling, however, accelerated Goethe's move toward idealism. It began with their meeting in late May 1798 to conduct optical experiments together.³⁹ Then in early June, Goethe took up Schelling's book *Die Weltseele*. Like Jacob with the

angel, he had to struggle mightily with the tome.⁴⁰ He later recalled this time when “I found much to think about, to examine, and to do in natural science. Schelling’s *Weltseele* required my utmost mental attention. I saw it everywhere incorporated into the eternal metamorphosis of the external world.”⁴¹ This angel, having been brought to submission, inspired in Goethe a poem, itself entitled *Weltseele*. It sang of that dream of the gods, the word-soul, which

Grasps quickly after the unformed earth
And with creative youth, does not cease
To animate and to bring to birth
Ever more life in measured increase,

so that finally “each mote of dust lives.”⁴² These few lines capture in poetic form the kind of “dynamic evolution [*dynamische Evolution*]” that Schelling himself portrayed in his tract and that Goethe would endorse.⁴³

Goethe’s poem not only indicates a locus of interest that Schelling’s work had for him; it also signals a transformation in his attitude about the relationship between art and science. In an essay composed in the early 1790s—his *Der Versuch als Vermittler von Objekt und Subjekt* (*The experiment as mediator between object and subject*)—Goethe had drawn sharp methodological distinctions between art and science, even if he transgressed these boundaries in practice.⁴⁴ At that time, he regarded the two enterprises quite conceptually distinct. Schelling, by contrast, began developing his philosophy precisely along the lines prescribed in the Romantic mandate of Friedrich Schlegel: “All art should become science and all science art; poetry and philosophy

should be made one.”⁴⁵ Despite his initial attitude, Goethe became, due to his interactions with Schelling, more self-conscious of the way in which poetry and science could and must come together. Schelling’s *System des transscendentalen Idealismus* demonstrated this for Goethe in a most compelling way.

The *System* began as a series of lectures Schelling gave in winter term 1799-1800 and published at Easter. He sent Goethe a copy, and the poet immediately responded that as far as he had quickly read, he thought he understood his young friend’s argument. He was sure that “in this kind of presentation, there would be great advantage for anyone who was inclined to practice art and observe nature.”⁴⁶ Goethe could rarely be moved to dispense patronizing flattery, and this certainly was not a case. He expressed his admiration for Schelling’s ideas quite openly, as Friedrich Schlegel mentioned, with some pique, to his brother: Goethe, he wrote to Wilhelm, “talks of Schelling’s *Naturphilosophie* constantly with particular fondness.”⁴⁷ But what exactly in the young philosopher’s *System* made such an impression on Goethe?

Schelling held that the ultimate aim of transcendental philosophy was to bring to intuitive identity the conscious and unconscious activity that constituted the unity of the self. With Fichte, he rejected the Kantian notion of a *thing-in-itself* as inconsistent and unjustifiable. He rather argued that the unconscious activity of an absolute self created both an empirical self and nature as the self’s reciprocal correlate. Transcendental philosophy had the task of making this creative activity reflectively certain on the one hand, and, on the other, to unite in intuitive synthesis both nature, the unconscious product of self, and the conscious self, which stood over against nature—the objective

realm with the subjective, necessity with freedom. The philosopher had the task, therefore, of bringing the intellectual intuition—that activity productive of self and non-self—up from the darkness of unconscious operation into the light of reflective awareness. But this intellectual intuition, according to Schelling, could be most perspicuously modeled on the aesthetic act, which united the unconscious laws of beauty and the conscious intentions of the artist. Close examination of the creation of the aesthetic object by the artist of genius, then, might illuminate the creation of the natural world and the empirical self by the genius of the absolute self.

Schelling's own theory of genius depended upon ideas drawn from Kant, Friedrich Schiller, and Friedrich Schlegel. He interpreted Kant's definition of genius (i.e., "the inborn mental trait (*ingenium*) through which nature gives the rule to art")⁴⁸ to mean that the artist's unconscious nature determines those principles of beauty that express themselves in non-conceptual feelings, which, in turn, drive conscious actions.⁴⁹ The artist applies paint to canvas not in light of a conscious set of rules but by relying on aesthetic feeling—the palpable surface of underlying unconscious laws—to guide the brush. In Schelling's view, the inarticulable laws governing an aesthetic production surge forth with irresistible determinacy from the unconscious nature of the genius. These laws, or rules, must be followed. Yet every necessary blow of the sculptor's chisel, every perfect metaphor of the poet, nonetheless flow from the free will of the genius. Insistent forces thus well up from the unconscious nature of the artist and rush in turbulent cascades through the narrows of consciousness. This creates, according to Schelling, violent eddies of contradiction that "set in motion the artistic

urge.”⁵⁰ Such contradictions can only be calmed in the execution of the work of art. As the artist comes to rest in the finished, objective product, he or she will sense the union of nature and self, of necessity and freedom, of—finally—the unconscious and the conscious self. Thus will the goal of transcendental philosophy be reached: what is originally an identical self—fragmented, as it were, through a kind of dialectical development in which self-reflection issues in the subjective structures of intelligence and the objective structures of nature—that one self will have returned to its original identity. The intelligence “will feel surprised and very happy by this union, that is, it will see this union as a generous gift of a higher nature, which through this connection has made the impossible possible.”⁵¹

In his analysis of the nature of artistic genius, Schelling attempted to portray, in another key, the creative essence of the self, as it constructed both itself and nature. He summarized this analysis by contending that “the aesthetic intuition is simply the intellectual intuition become objective.”⁵² Art, for Schelling, thus became the model for nature. And so he could introduce the Romantic conceit that “nature is a poem that lies enclosed in a secret, wonderful script.”⁵³ This was a philosophical position that could only attract Goethe’s admiration.

Two weeks after sending a copy of his *System* to Goethe, Schelling left Jena with Caroline Schlegel and Auguste for Bamberg, where, in mid-summer tragedy befell them—Auguste, Caroline’s daughter and a young woman of infinite promise, died of typhus. When he learned of Auguste’s death and perceived the vindictive atmosphere now permeating Jena because of Schelling’s romantic involvement with Caroline,

Goethe feared that the philosopher might never come back. He yet decided to continue study of this new brand of idealism, different as it was from Fichte's. He wrote Schelling to encourage his return and to suggest they would come to complete philosophical harmony:

Since I have shaken off the usual sort of natural research and have withdrawn into myself like a monad and must hover over the mental regions of science, I have only occasionally felt a tug this way or that; but I am decisively inclined toward your doctrine. I wish for complete harmony, which I hope to have effected sooner or later through the study of your writings, or preferably from your personal presence; and I hope, as well, through the formation of myself in respect of the universal to have an impact sooner or later; this formation must become accordingly more pure—indeed, the more slowly I absorb this, the truer I remain to my own mode of thinking.”⁵⁴

Goethe mentioned in his letter that he had been taking instruction in the new idealism with Niethammer (who was in the philosophy faculty at Jena). The two met almost daily for a month, from early September to early October 1800.⁵⁵ After Schelling returned in the fall to Weimar, his philosophical élan slowly died away and was replaced by a growing depression over the death of Auguste. By Christmas he was in such a state that Caroline believed he might commit suicide, and she arranged for Goethe to take in her despairing lover. Schelling spent the Christmas holiday with Goethe, who apparently wrought the right kind of psychological cure. Schelling

recovered, and his gratitude for Goethe's personal solicitude mixed sweetly with admiration for the older man's genius.⁵⁶ When Schelling lectured on the philosophy of art shortly thereafter, he did not hesitate to proclaim the poet's *Faust* "nothing else than the most intrinsic, purest essence of our age."⁵⁷ While Schelling remained at Weimar, he and Goethe continued to meet; they would discuss the philosopher's new projects, projects, such as the *Bruno*, which gave forceful and fairly accessible expression to the Spinozistic identity theory that Schelling was developing—a theory certainly encouraged by Goethe.

There can, I believe, be little doubt of Goethe's admiration for Schelling or his enthusiasm for the new philosophy. Goethe explained to Schiller why he was so engaged with Schelling's ideas: "since one cannot escape considerations of nature and art, it is of the greatest urgency that I come to know this dominant and powerful mode of thought."⁵⁸ This "dominant and powerful mode of thought" solved for Goethe several deep problems concerning nature and art about which he constantly worried. Let me indicate specifically just how Schelling's philosophy accomplished this.

Schelling's Resolutions of Goethe's Kantian Problems

First, and most importantly, Schelling's philosophical view, especially as developed in his *System des transscendentalen Idealismus*, theoretically demonstrated that scientific understanding and artistic intuition did not play out in opposition to one another, as Goethe once thought, but that they reflected complementary modes of penetrating to nature's underlying laws. For Goethe this liberated his sense of the

intimate connection between the scientific and the artistic approaches to nature, which he consequently expressed, as was his wont, in a poem—*Natur und Kunst* (*Nature and art*)—that he composed at this time:

Nature and art, they seem each other to repel
Yet, they fly together before one is aware;
The antagonism has departed me as well,
And now both of these seem to me equally fair.⁵⁹

If, as Schelling maintained, “the world is the original, yet unconscious poetry of the mind [Geist],”⁶⁰ then the poet might construct beautiful representations employing those same principles that went into the original creation of the natural world. So, again, there would be philosophical justification for the assumption of complementarity of scientific and aesthetic judgment: the poet, through creative genius, could compose those works that would have the authority of nature herself—an authority that Goethe always deeply felt but could not justify. And reciprocally, the aesthetic might lead us to nature’s concealed laws, to those archetypes according to which nature creatively expressed herself. As Goethe epigrammatically formulated it: “The beautiful is a manifestation of secret laws of nature, which without its appearance would have remained forever hidden.”⁶¹ This Goethean conception ran counter to the deep separation that Kant constructed between determinate judgments of nature and regulative judgments of art.⁶² It was Schelling, though, who demonstrated how aesthetic judgment opened the heart of nature for scientific examination.

Schelling had also shown in the *System* that Kant should not have restricted

genius to the aesthetic realm. He demonstrated that genius could also be found in science. As Goethe met resistance from professionals to his work in optics and morphology, he would, undoubtedly, rest more comfortably in the knowledge, thanks to his young friend's analysis, that his genius in science need not adhere to conventional scientific wisdom. His aesthetic intuitions might probe more deeply, might lead more surely to new discoveries in science than could the plodding, tradition-bound studies of his critics. Moreover, Schelling had argued that the laws of nature, which the poet-scientist might comprehend, would be also laws of free creativity. Though Goethe probably did not inquire too deeply after Schelling's argument that the free creativity of mind conformed exactly to the fixed laws of nature, the argument, nonetheless, gave solace to his settled belief, which extended from ethics and politics to aesthetics, that true freedom, at least of the human variety, could only be realized in limitation. As he expressed it in the concluding stanza of his *Natur und Kunst*:

He who would be great must act with fine aplomb;
In constraint he first shows himself the master,
And only the law can give us full freedom.⁶³

I have several times suggested that Schelling's philosophical principles would resolve for Goethe the conundrum that plagued all who became persuaded, as he did, of the Kantian epistemology: namely, how might we have authentic understanding of external nature, if we were shielded by our own representations from reality? If our mental constructions erected only a faux nature? The resolution, from Schelling's perspective, was simply that mind may indeed construct nature, but that there was no

Ding-an-sich standing behind the construction. Nature really was as she appeared to be. So the bright colors and forms that dazzled the eye were not meretricious and superficial traits—they inhered in nature. In Schelling's view the true idealism was the most authentic realism. Moreover, as Schelling drove his philosophy to an absolute ideal-realism, his position merged with that of Spinoza: the ideas that constituted nature's creations were not captives of individual minds, but stood beyond empirical self and nature, though were realized in both. Hence the solution to the puzzle of Goethe's epigram that "an unknown, law-like something in the object corresponds to an unknown, law-like something in the subject."⁶⁴ The connection between object and subject occurred through the organic activity of absolute mind and its ideas, which latter functioned as those archetypal concepts at the foundations of morphology.

Schelling's impact on Goethe reverberated through the years, and again became particularly manifest during the time he worked on *Zur Morphologie*, beginning in 1817. The essay "Anschauende Urteilskraft" ("Intuitive judgment," 1820) provides a good example of this lasting influence. The essay returns to Kant's third *Critique*, as Goethe himself did at this time, to consider the philosopher's distinction between reflective and determinative judgment. It will be recalled that Kant classified judgments of beauty and judgments appropriate to biology (ends-means assessments) as *reflective*. Such judgments arose in attempting to understand the relationship of parts to whole, either in a work of art or a work of nature. In our appreciation of an art object, our understanding considers its various parts, allowing the free play of imagination to get a sense of the harmony of forms, a feeling of purposiveness in their arrangement; such feelings

express those inarticulable ideas of beauty and allow the necessity and universality of the aesthetic judgment. Likewise, when the biologist assess the traits of an organism, the same reflective procedure occurs: through an initial exploration of the parts, he formulates an idea of the whole—though a conscious and articulable one, an archetype—and thereby understands the organism's traits in relation to the whole. Indeed, the student of nature must, according to Kant, judge the structures investigated as *if* they came to exist by reason of the idea or archetype. But in this instance, the biologist makes only a heuristic assessment, and does not—cannot—presume the idea at which he arrives to have actually caused the structure. The scientist, according to Kant, ought make *determinative* attributions only of mechanical causes, not of intentional causes, to explain natural phenomena.

In our scientific understanding of nature, according to the Kantian system, we apply categories like causality and substance determinatively to create, as it were, the phenomenal realm of mechanistically interacting natural objects. But in considering biological organisms, we must initially analyze the parts in reflective search of that organizing idea that might illuminate their relationships. But Kant suggested that we could conceive of another kind of intellect, one other than ours, which might move from the intuition of the whole to that of the constituents, instead of following our path from parts to whole. This would then be an *intellectus archetypus*, whose very idea would be creative. Concerning this Kantian notion, Goethe made a trenchant and many-layered observation:

The author seems here, indeed, to refer to a divine understanding. Yet, if

in the moral realm we are supposed to rise to a higher region and approach the primary Being through belief in God, virtue, and immortality, then it also should be the same in the intellectual realm. We ought to be worthy, through the intuition of a continuously creative nature, of mental participation in its productivity. I myself had incessantly pushed, initially unconsciously and from an inner drive, to the primal image [*Urbildliche*] and type [*Typische*]. Fortune smiled on this effort and I was able to construct a representation in a natural way; so now nothing more can prevent me from boldly undertaking that “adventure of reason,” as the grand old man from Königsberg himself has called it.⁶⁵

In this passage and in the brief essay from which it comes, Goethe attempted to muscle into philosophical acceptance a thesis similar to one of Schelling: namely, if moral experience required us to postulate God to make sense of that experience, then our experience of organisms should also require us to postulate an intellectual intuition to make sense of such experience.⁶⁶ But Goethe suggested that this would occur in two ways: first would be the intellectually intuitive action of nature—the assumption that nature herself, through a kind of instantiation of archetypal ideals, would create organisms according to such ideals. Here Goethe seems to allude to the Spinozistic notion of adequate ideas that themselves would be creative. The second construction that Goethe put on Kant’s conception was that we also might share in this kind of intellectual intuition, presumably as the artist who created an aesthetic object and also as the scientist who penetrated the veil of nature to intuitively understand the archetypal

unity underlying its variegated displays. Like Schelling, Goethe thus implied that if archetypal ideas were necessary for our experience of organic nature, then they had to be causal constituents of that experience—mentally creative of that experience. And there was the further implication of this analysis, namely that in such mental creations we shared in nature's own generative power—indeed, that we become identified with nature in such activity. Goethe thus reaffirmed a Schellingian Spinozism: God, nature, and our intellect were one.

Goethe's final remark in the quotation above draws out the ultimate consequence of this ideal-realism. In the third *Critique*, Kant recognized that the variety of organic forms yet displayed “a common archetype [*einem gemeinschaftlichen Urbilde*],” and thus might be produced, as he put it, by “a common primal mother.” This might lead to undertaking “a daring adventure of reason,” namely, the belief that the earth had given birth to less-purposive forms and these to more-purposive, till the array of currently existing organisms appeared. Kant thought this transformational hypothesis would be logically possible if we initially assumed the initiating cause of the series was itself organic. He yet rejected this evolutionary hypothesis because he did not think we had any empirical evidence of the generation of a more organized form from a less organized one.⁶⁷ Schelling's theory of *dynamic evolution*, which Goethe accepted, postulated an organic foundation (i.e., absolute mind) for a transformational series; and by the time of the *Zur Morphologie*, researchers had accumulated fossil evidence of such transformations (e.g., the Megatherium). Goethe was thus ready, as he concluded, boldly to undertake that adventure of reason of which the Königsberg sage

had spoken.

The evolutionary hypothesis as applied to nature reflected Goethe's own mental evolution: the *Zur Morphologie* tracked the gradual ascent of his morphological ideas, and those ideas gave rise to the transformational hypothesis he rather boldly embraced in the book.⁶⁸ The metaphysical foundation, for Goethe, of these two evolutionary series—of the self and of nature—rested ultimately on the kind of ideal-realism for which Schelling had argued and which Goethe embraced.

Footnotes

¹Hermann von Helmholtz, "Ueber Goethes wissenschaftliche Arbeiten. Ein Vortrag, gehalten in der deutschen Gesellschaft in Königsberg, 1853," *Allgemeine Monatsschrift für Wissenschaft und Literatur*, 1853, pp. 383-98; republished in *Populäre wissenschaftliche Vorträge*, vol. 1 (Braunschweig: Friedrich Vieweg und Sohn, 1865).

²*Ibid.*, pp. 34-38.

³*Ibid.*, p. 43.

⁴There is yet a mystery as to whether Goethe actually made this discovery, so often attributed to him by many, including himself. For a reevaluation, see my *The Romantic Conception of Life: Science and Philosophy in the Age of Goethe* (Chicago: University of Chicago Press, 2002).

⁵Hermann von Helmholtz, *Goethes Vorahnungen kommender naturwissenschaftlichen Ideen. Rede, gehalten in der Generalversammlung der Goethe-Gesellschaft zu Weimar den 11 Juni 1892* (Berlin: Verlag von Gebrüder Paetel, 1892).

⁶*Ibid.*, pp. 30-32.

⁷*Ibid.*, pp. 32-33.

⁸*Ibid.*, p. 7.

⁹Goethe read the First Critique rather thoroughly, as his pencil scorings

throughout the book indicate. Karl Vorländer describes Goethe's marginalia in his *Kant-Schiller-Goethe*, 2nd ed. (Aalen: Scientia Verlag [1923], 1984), especially pp. 283-91. Goethe mentioned to Sulpiz Boisserée that he had a seminar with Reinhold on Kant. See Sulpiz Boisserée, *Tagbücher* (3 October 1815), ed. Hans-J. Weitz, 5 vols. (Darmstadt: Eduard Roether Verlag, 1978-1995), 1: 278.

¹⁰Goethe, "Einwirkung der neueren Philosophie" (1820) in *Sämtliche Werke nach Epochen seines Schaffens* (Münchner Ausgabe), ed. Karl Richter, et al., 21 vols. (München: Carl Hanser Verlag, 1985-1998): 12: 95.

¹¹ Vorländer, in the fundamental treatment of Goethe's Kantianism, judged that the few notes the poet made directly from the *Critique of Pure Reason* indicated that he had not overestimated his penetration of the work. See Vorländer, *Kant-Schiller-Goethe*, pp. 140-44. Reinhold's conception of the Kantian project would prove crucial for the later development of Fichte's and Schelling's idealism. When these two philosophers rejected so vehemently Kant's *Ding-an-sich*, they were reacting mostly to Reinhold's version of that Kantian doctrine. The blunt formulations of Reinhold undoubtedly made Goethe's acceptance of the Kantian epistemology difficult, and allowed the poet to be more receptive to Schelling's later advance upon Kant. See my *The Romantic Conception of Life*.

¹²I have discussed Goethe's formulations of morphology during his Italian travels in "The Erotic Authority of Nature: Art, Science, and the Female during Goethe's Italian

Travels,” in Lorraine Daston and Fernando Vidal (eds.), *The Moral Authority of Nature* (Chicago: University of Chicago Press, 2001).

¹³Goethe sketched the ideas of the Critique that most struck him in “Einwirkung der neueren Philosophie,” *Sämtliche Werke*, 12: 96-97.

¹⁴Ibid., p. 97.

¹⁵Friedrich Schiller to Johann Wolfgang von Goethe (23 August 1794), in *Goethe Sämtliche Werke*, 12: 15.

¹⁶Ibid., p. 14.

¹⁷Ibid., p. 14-15: “This logical direction, which your mind was required to take in a reflective mode, comports ill with the aesthetic direction it takes when it creates. So you had one more task: just as you went from intuition to abstraction, so now you had to move in the reverse direction and turn concepts into intuitions and thoughts into feelings, since only in this way can genius produce anything.”

¹⁸Immanuel Kant, *Kritik der Urteilskraft* ('46), in *Immanuel Kant Werke*, ed. Wilhelm Weischedel, 6 vols. (Wiesbaden: Insel Verlag, 1957), 5: 405-406.

¹⁹Johann Wolfgang von Goethe, *Maximen und Reflexionem*, no. 1344, in *Sämtliche Werke*, 17: 942.

²⁰Johann Wolfgang von Goethe, “Versuch einer allgemeinen

Vergleichungslehre,” in *ibid.*, 4.2: 182.

²¹Johann Wolfgang von Goethe, “Vorträge, über die drei ersten Kapitel des Entwurfs einer allgemeinen Einleitung in die vergleichende Anatomie, ausgehend von der Osteologie, 1796,” in *Sämtliche Werke*, 12: 203.

²²*Ibid.* The text is ambiguous as to whether the concept “lawfully-free [gesetzmässig-frei]” and the others in that string of adjectives should be applied to the mode of representation or to the object represented (i.e., the type). Kant cultivated the notion that our moral and aesthetic representations were the result of bringing oneself freely under law. Goethe conceived of the archetype as embracing a law-like pattern, but one that permitted the freedom of empirical expression. Insofar as Goethe attributed the same concept to the genius of nature as well as to that of man, perhaps he intended the ambiguity. More generally, Goethe liked the notion that freedom required constraint. Fichte, whose work Goethe knew quite well, had elevated the notion of representation (*Vorstellung*) to a prominent place in the epistemology of science, and he, too, insisted on the freedom of the act of representing.

²³Kant, *Kritik der Urteilskraft* ('22), in *Werke*: 5: 324 (A68, B69). Goethe frequently urged the idea that freedom was only found in restraint. His poem *Natur und Kunst* ends with the line “And only the law can give us freedom [Und das Gesetz nur kann uns Freiheit geben].” See, *Natur und Kunst*, in *Werke* (Hamberger Ausgabe), 14 vols. (Munich: Deutscher Taschenbuch Verlag, 1988), 1: 245.

²⁴Fichte was quoted by Wilhelm von Humboldt to Friedrich Schiller (22 September 1794), in *Goethes Gespräche*, ed., Flodoard von Biedermann, enlarged by Wolfgang Herwig, 5 vols. (Munich: Deutscher Taschenbuch Verlag, 1998), 1: 564.

²⁵Johann Wolfgang von Goethe to Johann Heinrich Meyer (20-22 May 1796), in *Goethes Briefe* (Hamburger Ausgabe), ed. Karl Robert Mandelkow, 4th ed., 4 vols. (München: C. H. Beck, 1988), 2: 221-22.

²⁶Friedrich Schlegel to August Wilhelm Schlegel (1799), in *Friedrich Schlegels Briefe an seinen Bruder August Wilhelm*, ed. Oskar Walzel (Berlin: Speyer & Peters, 1890), p. 410.

²⁷See Goethe, *Tagebücher* (20 March 1797), in *Goethes Werke* (Weimar Ausgabe), 142 vols. (Weimar: Böhlau, 1887-1919), III. 2, p. 62. Friedrich Schlegel's *Die Griechen und Römer* appeared in 1797 (though some of the essays had been printed earlier), bearing the preface that celebrated Schiller's essay.

²⁸See Friedrich Schlegel, *Fragmente*, in, *Kritische Friedrich-Schlegel-Ausgabe*, 35 vols. to date, ed. Ernst Behler et al (Paderborn: Verlag Ferdinand Schöningh: 1958-), 2: 198.

²⁹Heinrich Heine, *Die Romantische Schule*, in *Sämtliche Schriften*, ed. Klaus Briegleb, 6 vols., 3rd ed. (Munich: Deutscher Taschenbuch Verlag, 1997), 3: 388.

³⁰Johann Wolfgang von Goethe to Christian Gottlob Voigt (21 June 1797), in

Goethes Briefe, 2: 615.

³¹Dietrich von Engelhardt has offered the most sensitive consideration of Goethe's relation to the science and philosophy of the Romantics. He yet argues: "Though Goethe's research into nature doubtlessly is close to metaphysical *Naturphilosophie* and romantic research into nature, it nonetheless is quite clearly distinct from these positions in its specific connections with aesthetics, philosophy, science, and biography." See Dietrich von Engelhardt, "Natur und Geist, Evolution und Geschichte: Goethe in seiner Beziehung zur romantischen Naturforschung und metaphysischen Naturphilosophie," in Peter Matussek (ed.), *Goethe und die Verzeitlichung der Natur* (Munich: C. H. Beck, 1998), p. 18. Walter Wetzels thinks Goethe rejected the presumed deductively a priori scientific methods of Schelling: "Goethe refused to embrace the approach advocated and practiced by Schelling, namely to proceed from preconceived general hypotheses about nature, and to deduce from them the properties of reality." See Walter Wetzels, "Organicism and Goethe's Aesthetics," in Frederick Burwick (ed.), *Approaches to Organic Form* (Dordrecht: Reidel, 1987), pp. 71-85 (quotation from p. 74). Of course, Goethe did reject such a-priorism, but then, so did Schelling. Nicholas Boyle attempts to show that Goethe, though initially friendly toward Schelling's *Naturphilosophie*, simply rejected the idealism of the young philosopher. See, for instance, Nicholas Boyle, *Goethe: The Poet and the Age*, 2 vols. (Oxford: Oxford University Press, 1991-2000), 2: 667-68, 675-77.

³²After reading Henrik Steffens's *Grundzüge der philosophischen*

Wissenschaften (1806), Goethe observed to his friend Wolf: “the preface to the little book has indeed a mellifluous edge, but we amateurs choke mightily on the contents.” See Johann Wolfgang von Goethe to Friedrich August Wolf (31 August 1806), in *Goethes Werke* (Weimarer Ausgabe), IV.19: 187. Goethe complained to Sulpiz Boisserée about Schubert’s Protestant “mysticism”: “Thus the pitiable Schubert, with his attractive talent, attractive remarks, etc—he plays now with death and seeks his healing in corruption—and indeed, he is already half corruption himself, that is, he quite literally has consumption.” See Boisserée, *Tagebücher* (4 August 1815), 1: 232.

³³For instance, even after Schelling had turned more to investigate religious phenomena, Goethe read his works with avid curiosity, as he indicated to Jacobi: “I owe [my attitude] to the more elevated standpoint to which philosophy has raised me. I have learned to value the Idealists. . . Schelling’s lecture has given me great joy. It sails in those regions in which we both like to tarry.” See Johann Wolfgang Goethe to Friedrich Heinrich Jacobi (11 January 1808), in *Werke* (Weimarer Ausgabe), IV.20: 5.

³⁴Goethe, *Tagebücher* (12-13, 16 November 1798), in *Werke* (Weimar Ausgabe), III.2: 222-23.

³⁵Goethe read Schelling’s *Einleitung* on 23 September and talked with him about it; and then from the 2nd to the 5th of October, they read through the work together. See Goethe’s *Tagbücher*, in *Werke* (Weimarer Ausgabe), III.2: 261-63.

³⁶Friedrich Schelling to F. A. Carus (9 November 1799), in Horst Fuhrmans

(ed.), *F. W. J. Schelling. Briefe und Dokumente*, 3 vols. to date (Bonn: H. Bouvier, 1962B), 1: 176-77: "A short while back he [Goethe] spent several weeks here. I was with him for a long time every day, and had to read aloud my work on *Naturphilosophie* and explained it to him. What a florescence of ideas these conversations have produced for me, you can well imagine."

³⁷Friedrich Schelling, *Einleitung zu dem Entwurf eines Systems der Naturphilosophie*, in *Schellings Werke* (Münchner Jubiläumsdruck), ed. Manfred Schröter, 12 vols. (Munich: C. H. Beck, 1927B1959) 2: 278 (III: 278).

³⁸Goethe to Jacobi (17 October 1796), in *Goethes Briefe*, 2: 240.

³⁹Goethe's diary indicates they met several times during Schelling's first year (1798) in Jena, and at the end of May, they performed those optical experiments mentioned above. See, Goethe, *Tagebücher* (28-30 May 1798), in *Werke* (Weimar Ausgabe), III, 2: 109.

⁴⁰*Ibid* (7-8 June), pp. 110-11.

⁴¹Goethe, *Tag-und Jahres-Hefte 1798*, in *Sämtliche Werke*, 14: 58.

⁴²Johann Wolfgang von Goethe, *Weltseele*, in *ibid.*, 6.1: 53-54: "Ihr greifet rasch nach ungeformten Erden/ Und wirket schöpfrisch jung/ Dass sie belebt und stets belebter werden,/ Im abgemess'nen Schwung." The exact date of the poem is uncertain, but it seems to have come from sometime in 1798-1799.

⁴³I have discussed Schelling's theory of dynamic evolution in my *Romantic Conception of Life*, chaps. 3 and 11.

⁴⁴Johann Wolfgang von Goethe, *Der Versuch als Vermittler von Objekt und Subjekt*, in *Sämtliche Werke*, 4.2: 321-32. The essay is dated 28 April 1792, but did not receive its title till publication in 1823.

⁴⁵Friedrich Schlegel, *Kritische Fragmente* (115), in *Kritische Schriften und Fragmente*, eds. Ernst Behler and Hans Eichner, 6 vols. (Paderborn: Ferdinand Schöningh, 1988), 1: 249.

⁴⁶Johann Wolfgang von Goethe to Friedrich Schelling (19 April 1800), in *Goethes Briefe*, 2: 405.

⁴⁷Friedrich Schlegel to August Wilhelm Schlegel (26 July 1800), in *Friedrich Schlegels Briefe*, p. 431.

⁴⁸Immanuel Kant, *Kritik der Urteilskraft*, in *Werke*, 5: 405-406 (A 178-79, B181).

⁴⁹It is very likely that Schelling discussed this interpretation of Kantian genius with both Schiller and Goethe, with whom he met on frequent occasion during the period 1797-1800.

⁵⁰Schelling, *System des transcendentalen Idealismus*, *Schellings Werke*, 2: 616-17 (III: 616-17).

⁵¹Ibid., p. 615 (III: 615).

⁵²Ibid., p. 625 (III: 625).

⁵³Ibid., p. 628 (III: 628). See my *Romantic Conception of Life*, chap. 3.

⁵⁴Wolfgang von Goethe to Friedrich Schelling (27 September 1800), in *Goethes Briefe*, 2: 408.

⁵⁵Goethe, *Tagebücher* (5 September-3 October 1800), *Werke*, III.2: 304-308.

⁵⁶Goethe was in Jena from 12 to 26 December, and traveled back to Weimar with Schelling on the 26th. Among other diversions of the season, Goethe went with Schiller and Schelling to a masked ball at court (2 January 1801), though the three finally escaped to talk about aesthetics. Schelling stayed until 4 January, when Goethe had to take to his bed because of a severe catarrh. See *Goethes Tagebücher*, part 3, of *Goethes Werke*, 2: 315-16, 3: 1. Schelling wrote Goethe at the end of January to give thanks that the poet was feeling better. He then expressed his gratitude: "The recollection of the healing and happy stay in your house and under your gaze has not left me for an instant, and was, for me at this time, of infinite value." See, Friedrich Joseph Schelling to Johann Wolfgang von Goethe (26 January 1801), in *Schelling als Persönlichkeit: Briefe, Reden, Aufsätze*, ed. Otto Braun (Leipzig: Fritz Eckardt Verlag, 1908), p. 88.

⁵⁷Friedrich Schelling, *Philosophie der Kunst*, in *Schellings Werke*, 3: 466 (V:

446).

⁵⁸Johann Wolfgang von Goethe to Friedrich Schiller (16 September 1800), in *Sämtliche Werke*, 8.1: 814.

⁵⁹Johann Wolfgang von Goethe, *Natur und Kunst*, in *Werke* (Hamburger Ausgabe), 1: 245: “Natur und Kust, sie scheinen sich zu fliehen,/ Und haben sich, eh man es denkt, gefunden;/ Der Widerwille is auch mir verschunden,/ Und beide scheinen glich mich anzuziehen.”

⁶⁰Schelling, *System des transcendentalen Idealismus*, in *Schellings Werke*, 2: 349 (III: 349).

⁶¹Johann Wolfgang von Goethe, *Maximen und Reflexionen*, in *Sämtliche Werke*, 17: 749.

⁶²Kant, it must be stressed, thought the regulative principle that nature should be comprehensible to us was a transcendental requirement for all determinative judgments about nature. However, aesthetic judgment per se, which employed no conscious conception of its object—i.e., beauty—differed radically from determinate judgments about nature, which necessarily employed conscious concepts, concepts that should not be teleological.

⁶³Goethe, *Natur und Kunst*, p.: “Wer Grosses will, muss sich zusammenraffen;/ In der Beschränkung zeigt sich erst der Meister,/ Und das Gesetz nur kann uns Freiheit

geben.”

⁶⁴Johann Wolfgang von Goethe, *Maximen und Reflexionem*, no. 1344, in *Sämtliche Werke*, 17: 942.

⁶⁵Johann Wolfgang von Goethe, “Anschauende Urteilskraft,” *Zur Morphologie*, 1.2, in *Sämtliche Werke*, 12: 98-99.

⁶⁶Though a bit vaguely stated, this was Kant’s position in the second *Critique* and reiterated in the third *Critique*. But Kant thought the postulate of God necessary as a practical matter—rather like a heuristic or regulative idea. The argument from moral experience could not be used as a proof of the existence of a transcendent entity. In the third *Critique* he made this point explicit in a footnote to his moral argument: “This moral argument should not be taken to provide an objectively valid demonstration of God’s existence, not an argument that might prove to the skeptic that there is a God—rather that if he wishes to think consistently about morals, he must assume this proposition [that God exists] among the maxims of his practical reason.” See Kant, *Kritik der Urteilskraft*, in *Werke*: 5: 577 (B424-25).

⁶⁷*Ibid.*, pp. 538-39 (A364-65; B368-69).

⁶⁸Most scholars of Goethe’s biology reject the idea that he advanced anything like an evolutionary theory. I believe, however, that the evidence is quite persuasive that he in fact harbored evolutionary considerations of nature from a quite early period, at least from his intense interactions with Herder in the mid 1780s. See my *Romantic*

Conception of Life, chap. 11.