

10 Goethe's Exploratory Idealism

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“One has to always *experiment* with ideas.”

Georg Christoph Lichtenberg

“Everything that exists is an analogue to all existing things.”

Johann Wolfgang Goethe

Johann Wolfgang Goethe made his famous Italian journey in the late 1780s, approaching his forties, and it was nothing short of life-changing. Soon after his arrival in Rome on November 1, 1786, he writes to his mother that he would return “as a new man”¹; in the retroactive account of the journey in *Italienische Reise*, he famously describes his entrance into Rome “as my second natal day, a true rebirth.”² Latter-day critics essentially confirm Goethe’s reflections, describing the journey and its outcome as “Goethe’s aesthetic catharsis” (Dieter Borchmeyer), “the artist’s self-discovery” (Theo Buck), and a “Renaissance of Goethe’s poetic genius” (Jane Brown).³ Following a decade of frustrating unproductivity, the Italian sojourn unleashed previously unseen creative powers which would deeply affect Goethe’s life and work over the decades to come. Borchmeyer argues that Goethe’s “new existence in Weimar bore an essentially different signature than his pre-Italian one.”⁴ With this, Borchmeyer refers to a particular brand of neoclassicism known as Weimar classicism, *Weimarer Klassik*, which is less an epochal term, seeing as it covers only a little more than a decade, than a reference to what Gerhard Schulz and Sabine Doering matter-of-factly call “an episode in the creative history of a group of German writers around 1800.”⁵

Equally important as the aesthetic reorientation, however, was Goethe’s new-found interest in science, which was also a direct consequence of his encounter with the Italian nature. “The parallelism, even the identity of natural and artistic laws is literally the main theme of the *Italian Journey*,” Borchmeyer summarizes.⁶ What later would become Goethe’s most famous—or perhaps infamous—contributions to science, his theory of colors and his morphology, draw on the Italian experience,

to which they explicitly refer (cf. MA 12:69; MA 4.2:265). His earliest work in other fields of science, such as meteorology and chemistry, stems from this period as well, implying a holistic view on nature. John Erpenbeck has suggested that the insights into the field of science that Goethe gained during his Italian journey were not fundamentally new; the experiences, however, enabled him to see scientific connections and articulate a more comprehensive scientific worldview. “Italy—that was most of all an experience of integration,” Erpenbeck concludes.⁷

As a result, these two trajectories in Goethe’s post-Italian writing, the aesthetic and the scientific, are not merely simultaneous but essentially rooted in the same experience. Goethe’s classicist experience, to put it succinctly, is a double experience, encompassing both nature and art. Or, as Ernst Osterkamp puts it:

Only what does not deviate from the laws of nature can be classic. Thus, in the *Italian Journey* Goethe did not access the “classical soil” primarily as an antiquary or art lover but as a scientist, that is from the point of view of its natural conditions.⁸

In other words, Goethe’s conception of classicism in aesthetics is intimately associated with how nature is construed from a scientific point of view. The consequences of this double experience would unfold in the decade that followed the Italian journey. As Jutta Van Selm explains, Goethe’s mature thinking “bears completely upon the Italian experience,” and, as a result, there are “unmistakable parallels between the Italian experience and Goethe’s later theories on science and art.”⁹

This chapter will look at the methodological parallels between Goethe’s aesthetic writings and his scientific theories of the post-Italian, classicist period, which stretches from the return to Weimar in 1788 to Schiller’s death in 1805. Focusing on Goethe’s theoretical reflections in both of these fields, this chapter will unveil an essentially experimental, exploratory, collective, and open-ended conception of both art and nature. In science as well as in aesthetics, man’s pursuit of knowledge and beauty is epitomized by a never-ending search for an underlying idea. As we will see, this regulative idea is repeatedly made visible in often ephemeral manifestations of individual works of art and scientific experiments. Only by observing series of manifestations—reproductions of both images and experiments—is the idea made graspable. Despite being empirically present, it is not immediately perceivable but experienceable by means of exploratory investigation.

Furthermore, this exploratory idealism, I will argue, challenges much of what we take for granted in Weimar classicist aesthetics. For a long time, scholars have agreed that one of the key features of Weimar classicism, perhaps even *the* key feature, is aesthetic autonomy. It has been labeled the norm and the core of Weimar classicism,¹⁰ and Wilhelm

Voßkamp has concluded, “No other concept is perceived as more characteristic for the epoch of Weimar classicism than *aesthetic autonomy*.”¹¹ However, a comparison between the experimental methodology in Goethe’s aesthetic and scientific writings reveals a conspicuous *heteronomy* pertaining to the nature of the work of art, which, as we will see, cannot be described in terms of “intensive wholeness,” as Hans-Jürgen Schings suggests.¹² Rather, the aesthetic exploratory idealism that Goethe articulates in his classicist writings arranges the individual work in a sequence that points toward a regulative idea. This kind of sequencing of the work of art is analogous to the Goethean brand of experimental scientific methodology—which I will outline in the next section—pointing to a deep-seated experiential link between aesthetics and science. In other words, although Goethe does not conflate science and aesthetics, there is a common methodological denominator that joins the two fields, forming an analogical connection between them. Thus, this chapter will investigate two forms of heteronomy: a weaker form, which consists in the experiential link between science and art, to which Osterkamp and Van Selm have drawn attention and which is visible in the methodological homology between science and art, and a stronger form, which pertains to the heteronomy of the aesthetic experience as such, that is, its collective and sequential nature.

Experimentalism in the Age of Goethe

By the time Goethe started performing systematic scientific studies in the wake of his Italian journey, empirically grounded experimentalism had been around for almost two centuries. Galileo Galilei, who conducted experiments in the early seventeenth century, was supposedly the first practical experimentalist in the modern sense of the word,¹³ and around the same time, philosophers started laying the theoretical foundation of experimental knowledge. Francis Bacon, in the introduction to *Novum Organum* (1620), famously argued that new knowledge is obtained not through argument but through experience.¹⁴ In the decades and centuries that followed, empirical experiments (as opposed to thought experiments) became more prevalent, gaining solid philosophical ground in the works of Locke and Hume, among many others, who emphasized the *a posteriori* nature of all knowledge. Simultaneously, experimental practices evolved, establishing conventions for the relationship between hypotheses, experiments, and conclusions, and assigning mathematics a key role in scientific knowledge production. On German soil, Georg Lichtenberg and Kant provided the practical and the theoretical impetuses of experimentalism.

Still, around 1800, the reach and limits of experiments were yet not fixed. For the romantic, post-Kantian scientists and philosophers, the means and the goals of experimental science pointed far beyond what was

empirically given toward a total understanding of man and nature. The ultimate goal was an omniferous theory of nature, which should unify everything, including science, art, and politics, into one romantic, essentially poetic (or poietic) principle. Johann Wilhelm Ritter and Alexander von Humboldt, among others, used their own bodies as experimental objects in order to empirically uncover the fundamental principles of life that unify man with nature and the universe.¹⁵ From a philosophical point of view, Friedrich Wilhelm Joseph Schelling, in his philosophy of nature—or speculative physics, as he revealingly calls it—construes the experiment as a kind of prophetic invasion of the construction of nature that produces the phenomena it wishes to investigate.¹⁶ The grand ambition manifests itself perfectly in Novalis's unfinished (and perhaps also unfinishable) encyclopedic *Allgemeine Brouillon*, composed in 1798 and 1799. Here, the author—or rather editor—collects and comments on excerpts from a multitude of sources, including Humboldt, Kurt Sprengel, and Abraham Gottlob Werner,¹⁷ while adding his own aphorisms and reflections. In this context, the experiment explicitly constitutes a romanticizing art of invention, and the experimental process of observation is seen simultaneously as ideal (subjective) and real (objective).¹⁸

Goethe's scientific writings offer something of a link between or a combination of the two diametrically opposed worldviews: the mathematically based empiricism of the scientific community on the one side and the spiritual holism of the romantics on the other side. To be sure, Goethe carefully describes all the experiments that he undertook, accounting for the premises and outcomes of each and every test. He modifies the premises of the experiment systematically in order to infer regularities. Thus, he makes sure that others are able to repeat them (indeed, a cornerstone of the scientific method). For instance, in "Beiträge zur Optik," Goethe explicitly exhorts amateurs (*Liebhaber*) of science to copy (*nachahmen*) the included illustrations and, on the basis thereof, "repeat the experiments with even more ease and larger success" (MA 4.2:292). Also, he emphasizes that there is nothing to be found *beyond* the world of phenomena. "Let us not seek for something behind the phenomena—they themselves are the theory," one of his maxims states (MA 17:533/CW 12:307): an extreme level of empiricism that almost goes beyond the mathematization of the experience in generic science.

Then again, Goethe strived for a comprehensive understanding of nature in its totality, which, according to H. B. Nisbet in his well-known book *Goethe and the Scientific Tradition* (1972), draws on a Neoplatonic tradition that emphasizes the unity of nature, including man.¹⁹ Furthermore, there is an autobiographical trait in his scientific work that undeniably renders his scientific method a subjective slant. In *Zur Farbenlehre* and *Zur Morphologie*, Dorothea Kuhn maintains, the autobiographical form is transformed "into the foundation and principle of the entire scientific representation."²⁰ Goethe also engaged in science

poetically, particularly in his didactic poems. Poems such as “Die Metamorphose der Pflanzen” (1798), “Metamorphose der Tiere” (1798/1799), and “Urwort: Orphisch” (1817) were in fact published in his scientific journals in order to comment on more traditionally scientific texts. According to Jocelyn Holland, the poems play with the limits of scientific experimentation by pointing to the limits of representation.²¹ To Goethe, then, the wider scope of science is to understand man's place in nature and the harmonious unity between the two.²²

This double bind influences one of Goethe's most important contributions to the theory of the experiment: the essay “Der Versuch als Vermittler von Objekt und Subjekt,” written in 1792 in connection with his early color experiments but published in 1823, with minor revisions and with the title added (possibly by Goethe's secretary Friedrich Wilhelm Riemer).²³ Wolfgang Krohn argues that Goethe's conception of the experiment, as articulated in this essay, appears “to circulate *within* the aims of modern science but at the same time to develop a view of the relationship between subject and object that is distinct from the concept of the experiment in the main tradition.”²⁴ Goethe did not reject the experimental methods of his contemporaries, Krohn continues; rather, he wanted to expand the notion of the experiment, suggesting

that the concept of the experiment, introduced by Bacon and Galilei and worked out epistemologically in detail by Kant, carries a *constructive* feature that best describes the *controlled* environment of the laboratory sciences, whereas the conditions of experimentation by Goethe is epitomized by *experience* [*Erleben*], which focuses on the phenomena of the investigation that stand in an open relation to reality.²⁵

Friedrich Steinle, correspondingly, distinguishes between a theory-oriented conception of the experiment, which constitutes a means to prove a hypothesis, and an exploratory one, which, as the expression reveals, has less to do with proving a point and more to do with presuppositionlessly investigating a phenomenon. While the former is the Newtonian approach, which continues to dominate science today, the latter, endorsed by Goethe, constitutes an important undercurrent, which contemporary science has re-evaluated and refined.²⁶ To be sure, this methodology refers not to an unsystematic *modus operandi* or to the use of a spontaneous trial-and-error procedure. Instead, it is more open than theory-oriented experimentalism to the concrete result of the conducted experiment as it focuses primarily on the outcome rather than on the hypothesis.²⁷ As Steinle shows, Goethe's works, especially his contributions to the theory of color, are part of this often-ridiculed tradition:

The fundamental procedure consisted in varying different parameters of the experimental construction: the form of the monitored

surfaces, their size, color and brightness, the angle, from which they were observed, the refractive angle of the prism, the kind of glass of the prism, and the distance between the prism and the surface. The number of experiments conducted in this way could surely reach the hundreds.²⁸

Thus, a key feature of exploratory experimentalism is the systematic sequencing of experiences, a principle that Goethe utilizes in the strongest possible sense, as Steinle shows in his essay. In fact, according to Goethe's definition of the experiment, sequentiality constitutes the *sine qua non* of the concept in question: "When we intentionally reproduce empirical evidence found by earlier researchers, contemporary, or ourselves, when we re-create natural or artificial phenomena, we speak of this as an experiment" (MA 4.2:325/CW 12:13; cf. MA 4.2:269). Goethe seems to suggest that only in so far as an experience is sequentialized, either through replication or variation, can it be called an experiment.²⁹ As a result, an experiment is never an isolated entity. Quite the contrary: an experiment "receives its real value only when united or combined with other experiments" (MA 4.2:326/CW 12:13). Compared to Newton, who is praised for his experimental rigor but in reality kept the amount of experiments to a minimum, Goethe's experimentalism is excessive, fully embracing the exploratory method.³⁰

However, not only the object submitted to the experiment but also the subject conducting it is collectively determined. Science, Goethe understood, is essentially a collective process. We do not appreciate enough, he says, "our need for communication, assistance, admonition, and contradiction to hold us to the right path and help us along it" (MA 4.2:325/CW 12:13). In this respect, science differs from art:

An artist should never present a work to the public before it is finished because it is difficult for others to advise or help him with its production. . . . In science, on the other hand, it is useful to publish every bit of empirical evidence, even every conjecture; indeed, no scientific edifice should be built until the plan and materials of its structure have been widely known, judged and sifted.

(MA 4.2:325/CW 12:13)

To be sure, this understanding of the collective nature of scientific endeavors is noticeable in Goethe's practical work as well, particularly in the later journals *Zur Morphologie* and *Zur Naturwissenschaft überhaupt*, which contained contributions by several authors.³¹

These subjective and objective collective processes at work—the experimental sequences and the collaborations in the scientific community—are signs of what James M. Van der Laan has described as Goethe's experimental "polyperspectivity": "Because reality has an interpretative

basis," Van der Laan argues, "the essay [i.e., "Der Versuch als Vermittler von Objekt und Subjekt"] seeks to illuminate each object or topic or issue from numerous different perspectives."³² The aim of these collective processes and repetitions is to "attain certainty" about the isolated empirical evidence we find in the experiment, as Goethe suggests (MA 4.2:327/CW 12:14). However, this singularity is merely apparent since the ultimate object of scientific knowledge is the totality of nature:

All things in nature, especially the commoner forces and elements, work incessantly upon one another; we can say that each phenomenon is connected with countless others just as we can say that a point of light floating in space sends its rays in all directions.

(MA 4.2:329/CW 12:15–16)

As a result, "we can never be careful enough in studying what lies next to it or derives directly from it" (MA 4.2:329/CW 12:16). Indeed, the ambition of grasping the totality of nature links Goethe's conception of science with the romantic and idealistic tendencies of his time, as outlined above. Then again, the desire for totality is also the motivation behind Goethe's exhortation to repeat experiments, which connects him with mainstream science. "To follow every single experiment through its variations," he declares, "is the real task of the scientific researcher" (MA 4.2:329/CW 12:16). Once again, he contrasts science and poetry, maintaining that the writer, "who writes to entertain" (MA 4.2:329/CW 12:16), must refrain from repetition. Replication, on the other hand, creates a series (*Reihe*) of experiments that, together, from a certain point of view, constitutes one experiment and one experience.³³

In the first two parts of my *Contributions to Optics* I sought to set up a series of contiguous experiments derived from one another in this way. Studied thoroughly and understood as a whole, these experiments could even be thought of as representing a single experiment [*Einen Versuch*], a single piece of empirical evidence [*Eine Erfahrung*] explored in its most manifold variations.

(MA 4.2:329–30/CW 12:16)

This single experiment and single empirical experience, which consists of many experiments and many experiences, "is clearly of a higher sort," Goethe concludes, repeating, "In my view, it is the task of the scientific researcher to work toward empirical evidence of this higher sort" (MA 4.2:330/CW 12:16). The rest of the essay is devoted to explaining this particular scientific duty: to develop a higher form of experience on the basis of a series of singular experiments. Interestingly, the scientist must make use of not only his intellect (*Verstand*) but also his imagination

(*Einbildungskraft*) and wit (*Witz*) to construct this higher form of experience, which is ultimately the aim of the scientific endeavor.

The nature of this scientifically valid higher experience, however, remains somewhat of a mystery throughout the essay on the experiment as mediator. A few years later (1798), in a short text, posthumously published in 1893 with the title “Erfahrung und Wissenschaft” (renamed by later editors as “Das reine Phänomen”), Goethe elaborates further on the ultimate aim of science, which, in this context, he labels *the pure phenomenon*. The scientist should focus on “not only how the phenomena appear, but also how they should appear” (MA 6.2:820/CW 12:24). As a result, many phenomena constitute what Goethe calls “empirical fractions which must be discarded if we are to arrive at a pure, constant phenomenon,” which explicitly constitutes “a type of ideal” (MA 6.2:820/CW 12:24). In other words, it is on behalf of “the idea of the pure phenomenon” that the fractions of empirical experience are sacrificed (MA 6.2:820/CW 12:24). The pure phenomenon, however, is not visible to the naked eye. Rather, it

stands before us as the result of all our observations and experiments. It can never be isolated, but it appears in a continuous sequence of events. To depict it, the human mind gives definition to the empirically variable, excludes the accidental, sets aside the impure, untangles the complicated, and even discovers the unknown.

(MA 6.2:821/CW 12:25)

As a mediator between the empirical phenomenon, which each and every one of us may experience in nature, and the pure phenomenon, identical to the higher form of experience that Goethe talks about in the essay on the experiment as mediator, there is the scientific phenomenon to which empirical phenomena “is then raised through experiments . . . by producing it under circumstance and conditions different from those in which it was first observed, and in sequence which is more or less successful” (MA 6.2:821/CW 12:25). The parallels between “Der Versuch als Vermittler von Objekt und Subjekt” and “Das reine Phänomen” are striking. In the latter, empirical and pure phenomena substitute object and subject, a move that emphasizes an important development in Goethe’s scientific thinking. Possibly under the influence of Kant, whose philosophy Goethe praises in “Einwirkungen der neueren Philosophie” (1820; MA 12:94–95), Goethe clearly makes a transcendental turn of his own as, in the earlier text, he focuses not on the object as such (nor on the subject) but on the givenness of the phenomenon.

Similar to the higher experience in “Der Versuch als Vermittler von Objekt und Subjekt,” the pure phenomenon, or the “Urphänomen,” as it is later renamed, is neither a singularity nor separated from the empirical reality. Quite the contrary: it manifests itself “in a continuous

sequence of events.” In other words, the pure phenomenon is intrinsically empirical but, at the same time, not empirically experienceable as such or in isolation—only in the form of a sequence. Joseph Vogl refers to the pure phenomenon as a form of “extended or higher empiricism” whose aim is nothing less than pure visibleness (*reine Sichtbarkeit*), consisting of a “fabric of sensuousness and idea.”³⁴ Drawing on Herder’s concept of “Hauptform,” Dalia Nassar argues, in a similar vein, that Goethe construes similarities and analogies structurally as they are “not necessarily to be found in the *perceptible* appearance, but in the structural and formal integrity of the whole.”³⁵ The ideal component, I would argue, is important. As Goethe famously claims in the autobiographical account of his first encounter with Schiller, “Glückliches Ereignis,” published in *Zur Morphologie* (1817), he was able to “have ideas without knowing it” and capable of “see[ing] them with [his] own eyes” (MA 12:89/CW 12:20).³⁶ However, the Goethean idea—the pure phenomenon—is not (Neo)platonist since it does not constitute a more genuine or original reality from which the empirical reality emanates. Rather, as “the result of all our observations and experiments,” it represents a regulative idea of the scientific endeavor, inseparable from the sequence of experiences from which it is constructed. Once again, the influence of Kant’s transcendental philosophy is evident. According to him, the direction of our understanding (*Verstand*) toward a particular goal, the desire to seek unity and completeness in nature, for instance, constitutes a regulative principle of reason (*Vernunft*).³⁷ Goethe, correspondingly, construes the pure phenomenon as such a goal, which should encompass all of nature. Unlike Kant, however, Goethe considers the idea to be empirical in the sense that it is experienceable, though not immediately but as the result of sequential experience. “Only at the end of the experimental sequence is the sought-after rule rectified,” Sabine Schimma maintains, “and thus scientifically verified.”³⁸ To be sure, the rule of the “Urphänomen,” which is generated “experimentally and processually from a multitude of isolated occurrences” but which, at the same time, “is experienceable in each individual phenomenon,” constitutes a “sensorily experienceable and likewise abstract totality.”³⁹

In that sense, Goethe’s pure phenomenon is constantly reconstructed as a result of the experiences (empirical and scientific) made by the experimenting subject. New experiences add to the experience of the pure phenomenon, which, as a regulative principle, is not experienceable as such but is noticeable in the continuously evolving totality of experiences. The subject itself, correspondingly, evolves as a result of the experimental enterprise: “[T]he more we pursue this study,” Goethe claims in “Der Versuch als Vermittler von Objekt und Subjekt,” “discovering further relations among things, the more we will exercise our innate gift of observation” (MA 4.2:322/CW 12:12).

To summarize the discussion so far, Goethe's concept of the experiment displays the following characteristics, which both conform and are at odds with the notion of the experiment of his peers:

- 1 experiments are serialized and controlled empirical experiences, warranting replication and variation;
- 2 experimental experiences are essentially collective and communicative, that is, they must be experienceable by the scientific community;
- 3 the scientific process is ultimately regulated by a simultaneously experienceable and abstract idea, the pure phenomenon, which is inferable from the series of experiments and constantly reconstructed.

What this means, in short, is that the series of controlled experiments to which the scientific community contributes pertains to forming a preliminary image ("Über die Notwendigkeit von Hypothesen," MA 3.2:298). This image is increasingly refined and perfected by means of said experiments, that is, scientific phenomena, which point to the ideal pure phenomenon. Since the pure phenomenon is both empirical and ideal, continuous reconstruction of knowledge is necessary: the idea and the experience affect each other reciprocally and constantly.

The Sequencing of the Work of Art in Goethe's Classicist Aesthetics

To be sure, the leap from science to aesthetics in Goethe's oeuvre is never far. As a matter of fact, Goethe construes deep ties between them, arguing that science is essentially rooted in poetry. Lamenting the tepid reception of his early work on morphology, *Versuch die Metamorphose der Pflazen zu erklären* (1790), he claims that the critics forgot that "science has developed from poetry" and that "one did not consider that both could very well once again, after a change of times, come together in a friendly manner at a higher level, for the benefit of them both" (MA 12:74). Furthermore, art is, as Goethe maintains in a posthumously published aphorism, "a second nature that is also mysterious but more intelligible, since it originates from reason" (MA 17:903, #1105).

Despite these ties, critics habitually link his conception of art with aesthetic autonomy. His classicist writings of the 1790s and early 1800s, particularly, are construed as an expression of the autonomization of art, which traditionally is assumed to be heralded in the works of Karl Philipp Moritz and Kant. Key features of aesthetic autonomy, particularly in the tradition of Moritz, which focuses primarily on the nature of the work of art and, to some extent, the creative process, include the completeness (*Vollkommenheit*), totality (*Ganzheit*), and internal purposiveness (*innere Zweckmäßigkeit*) of the work of art.⁴⁰ In other words, it is assumed to constitute a self-contained, organic totality that

lacks external purposes, which may be secondary at most. Although Goethe was well-read in Kant's philosophy, its particular emphasis on the subject's disinterestedness seems however to have left few traces in Goethe's writings on aesthetics.⁴¹ A closer look at Goethe's aesthetic writings from his classicist period reveals a heteronomous conception of the work of art. As a matter of fact, the heteronomization of the work draws on his classicist experience, that is, his experience during his Italian sojourn, of the *ideality* of the works of the classical age and the Renaissance. The ideality of these works—the Laocoön group, the Apollo Belvedere, Raphael's *Transfiguration*, and Leonardo's *Last Supper*, for instance—does not isolate the aesthetic experience to one particular version. On the contrary, the idea of the work, as we will see, constitutes the ultimate aim of the aesthetic experience, which is formed over time as the experience engages with various manifestations of the same idea. Thus, Goethe draws on this sequential experience of the work's idea in order to form, as in his scientific work, a *polyperspective* or *pluralized* view of the idea.

The Italian journey is what opened Goethe's eyes to the heteronomy of the work of art and the processual nature of the aesthetic experience.⁴² His first-hand encounters with masterpieces from Greek and Roman antiquity, as well as from the Italian Renaissance, are described in detail in *Italienische Reise*, which is essentially a cultural and aesthetic *tour de force*. Indeed, seeing the antique marbles and Renaissance paintings, and encountering the Italian nature and lifestyle, contributed to his feeling of rebirth. Goethe remarks, however, that these works are not entirely new to him. In his account of the Italian journey, after having beheld Raphael's ceiling paintings in Villa Farnesina and the *Transfiguration*, he refers to them as “All old acquaintances” (MA 15:162/CW 6:113):

For it may well be said that a new life begins when something previously known inside and out, but still only in parts, is beheld in its entirety. Now I see all my childhood dreams come to life; I see now in reality the first engravings that I remember (my father had hung the prospects of Rome in a corridor); and everything long familiar to me in paintings and drawings, copperplates and woodcuts, in plaster and cork, now stands together before me. Wherever I go I find something in this new world I am acquainted with; it is all as I imagined, and yet new. And the same can be said of my observations, my thoughts. I have had no entirely new thought, have found nothing entirely unfamiliar, but the old thoughts have become so precise, so alive, so coherent that they can pass for new.

(MA 15:147/CW 6:104)

Nothing is really new, then, although the old acquaintances appear more alive in their original setting. This includes statues as well, which

Goethe had often seen as plaster casts at various drawing schools in Germany. Commenting on his experience of the Laocoön group, to which he devotes an influential essay, published in the first issue of *Die Propyläen* (1798), he even goes as far as to say that the encounter with the marble original—to be sure, he was fully aware of the fact that it was a Roman copy of a lost Greek original—did not add anything of substance to the interpretation he had made some twenty years earlier in Mannheim, for which he accounts in *Dichtung und Wahrheit* (third part, 1814; MA 16:537). Although Goethe considers the plaster cast as lifeless in comparison to the skin-like marble—whereas the former appears “chalky and dead,” in the latter, he notices the “elegant semitransparency of the yellowish, nearly flesh-colored stone” (MA 15:178/CW 6:124)—the nature of the material only plays a minor role as, ten years after the return from Rome, in “Über Laokoon,” Goethe reflects on his experiences in the Vatican Museum.⁴³ On one occasion only does he refer to the physical material of the group: “I would suggest that you face the sculpture from a proper distance, eyes closed. If you open and then immediately close your eyes, you can see the whole marble in motion” (MA 4.2:81/CW 3:18). In the end, the experience of the marble only contributes to the already established interpretation based on the experience of an inferior reproduction of the work.

Although Goethe, as his long involvement with the Laocoön group shows, might have considered himself an ideal art lover, capable of appreciating the finer details of art even at a young age, he believed that education on aesthetic sensibility was essential in most cases. Thus, in the introduction to the journal *Die Propyläen*, the closest we come to a classicist program by Goethe’s hand, he writes that

Even a rough, imperfect plaster cast of a fine ancient work will have a strong effect on the viewer who, although inexperienced, is receptive to beauty. For even in an inferior reproduction we still perceive the idea, the simplicity and grandeur of form, in short, the general concept—as much as one with poor eyesight would see when looking at the original from a distance.

As we know, such imperfect reproductions often arouse a strong interest in art; yet the effect is commensurate with the object. What the novice art lover experiences is more an undefined, muddled feeling that the real worth and greatness of the original work.

(MA 6.2:21–22/CW 3:86–87)

There is a practical side to art reproductions which Goethe was not only fully aware but also approved of. Even “such imperfect reproductions” may promote the education of the art lover, though they only provide “an undefined, muddled feeling.” This indeterminate feeling is a response to the idea of the work, which is palpable even in the most

inferior reproduction. In the introduction to *Die Propyläen*, Goethe outlines a kind of progressive methodology that leads the art lover from the imperfect copy to the higher spheres of the original:

However, if after more experience and practice they see a finished rather than a rough cast, or even an original work, their enjoyment together with their insight grows, and increases as they become acquainted with originals, and finally with originals of the highest order.

(MA 6.2:22/CW 3:87)

As Johannes Grave and Jonas Maatsch have aptly suggested, Goethe engaged with art “not only ‘historically’ but also ‘progressively’ [*stufenweise*].”⁴⁴ At the core of the aesthetic experience, then, lies a conception of the work of art as essentially multifarious. The original, of course, constitutes the ultimate goal of the progressive aesthetic education. However, both the unique original and the ever-so-inferior reproduction embody the idea of the work and contribute to the complete understanding of it.

Goethe continued to collect reproductions of the works he had seen in Italy after his return home. Thanks to these, he was able to continuously refine his understanding of the work. Grave talks about Goethe’s *comparing gaze*, which was intended to “intensify the study of the model [*Vorlage*] as well as of the reproduction.”⁴⁵ Leonardo da Vinci’s *Last Supper*, for instance, which Goethe saw in Milan on his way back to Germany in 1787, was the object of persistent study and resulted in an extensive essay thirty years later. This essay deals explicitly with the pros and cons of copies, emphasizing the fundamental but nevertheless productive difference between these and the original (cf. MA 11.2:416–418). The experience of the original in itself, clearly, did not provide enough material for a complete understanding of the work. Rather, copies of various sorts—engravings, drawings, plaster casts, and later lithographies—facilitated a continuous retrospective reflection.

So far, we have only looked at the receptive side of the aesthetic experience: namely, the art lover’s encounters with various manifestations of works of art and the education of the art lover. Despite having abandoned his dreams of becoming a visual artist himself during his sojourn in Italy (cf. MA 15:610–611), Goethe remained engaged in the practical matters of producing art. Together with Johann Heinrich Meyer, he used his influence—as writer, editor, *Geheimrat*, and superintendent of the court theater in Weimar—to point the art of his time in a classicist direction. In particular, the prize competitions for visual artists are, Ernst Osterkamp explains, “of crucial importance for the understanding of Goethe’s artistic intention during the ‘classical decade,’ as he attempted, with great personal stakes, to gain influence on the current

development of the fine arts.”⁴⁶ According to the first announcement, published in *Die Propyläen* in 1799, the two initiators, Goethe and Meyer, would suggest “a suitable object [*Gegenstand*]” (MA 6.2:411), usually one or two scenes from Homer’s epic poems, each year. The participating artists were asked to submit works that presented the selected object in accordance with the artists’ own temper and preferences but also with the maxims for selection of aesthetic objects established by Goethe and Meyer (MA 6.2:411).

To be sure, the prize competitions turned out to be a gigantic failure⁴⁷; even within the unfathomable amount of scholarly work on Goethe, Osterkamp claims, the texts outlining the themes of the competitions are rarely commented on, unloved as they are by scholars.⁴⁸ However, being key works in Goethe’s classicist project, they are vital to the understanding of his notion of the aesthetic experience during these important years, around 1800. It is obvious that what Goethe and Meyer were looking for were not complete works of art but preliminary sketches and drawings, which they referred to as *Versuche*: attempts or even experiments—“Every artist will at each attempt [*Versuch*], which he makes from his own impulse or is prompted to make, contemplate everything more deeply and penetrate whence no text, regardless how well written it may be, could ever lead him” (MA 6.2:411). Sculptors, too, were instructed to submit drawings in order to be “judged with proper respect to the special conditions of sculpture” (MA 6.2:414). Thus, the aim of the competition was ultimately not to produce ideal works of art but rather to set “the talent in motion” (MA 6.2:413). As a result, the prize money was considered not “as a reward but rather as incitement and encouragement” (MA 6.2:413). In other words, Goethe and Meyer considered their endeavor as a kind of nudging, through which they gently pushed the artists of their time in a classicist direction.⁴⁹

As might be expected, the entries to the competition could hardly be called masterpieces. In fact, with few exceptions, they were mostly a great disappointment, and the entire endeavor was discontinued in 1805. Nevertheless, Goethe drew some interesting conclusions based on the works that were submitted:

We have justly entertained the idea that the formation of a work of art can only occur successively. The first hasty draft, the drawing with light and shadow, the sketch with colors, the large cartoon are all stages beyond which the artist nurtures his work in order to raise it toward the final completion in the large painting and gives it only in this form all of that which he, with regards to circumstances and skills, is able to give.
(MA 6.2:420)

The description of the successive formation of the work of art echoes the account of the progressive education of the art lover’s engagement

with the work. The prize competitions, Goethe seems to suggest, offered the ideal venue for making this processual nature of art visible. Not only did they lack an original, apart from Homer's verse; they also enabled a multitude of comparisons between various drafts of the same object, whose ideality Homer's words warranted. "Much," Goethe and Meyer avow, "is already portrayed so vivid, so simple and true in him that the fine artist finds his work already half-done" (MA 6.2:512).

What Goethe's post-Italian account of aesthetic experience—the encounter with already familiar works of art, the constantly enlarged collection of graphic art for comparison, and the prize competitions—boils down to, is that it must be regulated by an idea. The aesthetic experience, analogously to the scientific experience, is determined by a regulatory principle: namely, the idea of the work, which, alluding to Kant's conception of this principle, constitutes the desire to seek unity and completeness—what Goethe, in his scientific studies, calls the pure phenomenon. Analogous to the constant reconstruction of the pure phenomenon in science, the experience of the work's idea is at the same time empirical—it is indeed realized in the work of art and its various manifestations (drafts, copies, drawings, plaster casts, etc.)—and constantly postponed and restructured. Striving to grasp the idea of the work by means of the multitude of manifestations that it produces—they might be of better or worse quality; in either case, they contribute to the full experience—resembles the scientist's exploratory experimentation, which forms a series of preliminary experiences contributing to the experience of the pure phenomenon. The possibility or even the necessity of drafting, copying, imitating, transforming, rearranging, and revisiting works of art, including the most celebrated and supposedly inimitable ones, and their history is in fact fundamental to the aesthetic experience as such. These acts of reconstruction—they might precede or succeed the creation of the original—all contribute to the experience of the work as a pure phenomenon. Thus, the idea is experienceable in the array of the work's manifestations, which means that the work is never *only* singular. In other words, the work is not construed as a self-contained, complete, and perfect entity, that is, autonomous in the sense that is often attributed to Moritz. On the contrary, it is essentially experienceable as another work.

Goethe's conception of the heteronomous experience of the work of art displays a series of analogies to his scientific methodology and may be summarized in three points that correspond to the three points listed above:

- 1 the work of art is necessarily reproducible and exists as a series of manifestations that either proceeds or succeeds the original, and that includes visual (drafts, drawings, copies, etc.), verbal (descriptions, ekphrases, etc.), and possibly audial (operas, lieder, etc.) representations;

- 2 as a result, the work is collectively produced and involves artists, engravers, writers, and musicians;
- 3 together, the manifestations pertain to a regulatory idea, ideally manifested in the original masterpiece but not necessarily perceivable in the original since the experience of it presupposes both the preparatory education and the succeeding reflection of the observer.

The striking analogies between science and aesthetics in Goethe's classicist works indicate a common experiential origin. "How I used to observe nature, I now observe art," Goethe writes from Rome to his confident, Charlotte von Stein.⁵⁰ The analogy between the two forms of engaging in the world, the scientific and the aesthetic, denotes not some sort of identity between the two but rather, as the key words *how* and *observe* reveal, a connection between modes of investigation: the analogy as an exploratory form of knowledge production, open-ended and susceptible to what is yet undecided in the concrete experience.⁵¹ In conclusion, Goethe's idealism is essentially exploratory, both methodologically, relating to the way in which nature and art are investigated, and epistemologically, pertaining to the essence of knowledge as such.

Notes

- 1 Letter to Katharina Elisabeth Goethe, November 4, 1786. Johann Wolfgang von Goethe, *Werke*, Weimarer Ausgabe, Vol. IV/8 (repr., Munich: Deutsche Taschenbuch Verlag, 1987), 43.
- 2 Johann Wolfgang Goethe, *Italienische Reise*, in *Sämtliche Werke nach Epochen seines Schaffens*, Vol. 15, Münchner Ausgabe, ed. Karl Richter (Munich: Hanser, 1992), 174; Goethe, *Italian Journey*, in *Goethe's Collected Works*, Vol. 6, ed. Thomas P. Saine and Jeffrey L. Sammons (Cambridge, MA: Suhrkamp, 1989), 121. These editions are henceforward referred to in the main text as MA and CW, respectively. All other translations are mine.
- 3 Dieter Borchmeyer, *Weimarer Klassik: Portrait einer Epoche* (Weinheim: Beltz Athenäum, 1998), 141; Theo Buck, "Der Poet, der sich vollendet": *Goethes Lehr- und Wanderjahre* (Cologne, Weimar, and Vienna: Böhlau, 2008), 168 (caption); Jane K. Brown, "The Renaissance of Goethe's Poetic Genius in Italy," in *Goethe in Italy, 1786–1986: A Bi-Centennial Symposium November 14–16, 1986, University of California, Santa Barbara: Proceedings Volume*, ed. Gerhart Hoffmeister (Amsterdam: Rodopi, 1988), 77 (caption).
- 4 Borchmeyer, *Weimarer Klassik*, 125. For further reflections on the postponed consequences of the Italian journey, see 141–143.
- 5 Gerhard Schulz and Sabine Doering, *Klassik: Geschichte und Begriff* (Munich: Beck, 2003), 83. See also Borchmeyer, *Weimarer Klassik*, 13–40, and Stuart Atkins, "Italienische Reise and Goethean Classicism," in *Aspekte der Goethezeit*, ed. Stanley A. Corngold, Michael Curschmann, and Theodore J. Ziolkowski (Göttingen: Vandenhoeck & Ruprecht, 1977), 81–96.
- 6 Borchmeyer, *Weimarer Klassik*, 127.
- 7 John Erpenbeck, ". . . die Gegenstände der Natur an sich selbst. . . : Subjekt und Objekt in Goethes naturwissenschaftlichem Denken seit der italienischen Reise," *Goethe Jahrbuch* 105 (1988): 216. Cf. Emil Staiger, *Goethe*,

- Vol. 2 (Zurich: Atlantis, 1956), 19: "The south only revived and confirmed, by means of a plethora of new perceptions, what had been imposed upon him during the last years in Weimar."
- 8 Ernst Osterkamp, "Zum Verständnis des Klassischen in der Weimarer Klassik," in *Heikle Balancen: Der Weimarer Klassik im Prozess der Moderne*, ed. Thorsten Valk (Göttingen: Wallstein, 2014), 172.
 - 9 Jutta Van Selm, "Erfahrung und Theorie bei Goethe: der 'erste' und der 'reine' Eindruck: Von den italienischen Erfahrungen zu den Theorien in Natur und Kunst," *Goethe Yearbook 2* (1984): 121–122.
 - 10 Gerhard Sauder, "Ästhetische Autonomie als Norm der Weimarer Klassik," in *Normen und Werte*, ed. Friedrich Hiller (Heidelberg: Winter, 1982), 130–150; Hans-Jürgen Schings, "*Laokoon* und *La Mort de Marat* oder Weimarer Kunstfreunde und Französische Revolution," in *Klassizismus in Aktion: Goethes Propyläen und das Weimarer Kunstprogramm*, ed. Daniel Ehrmann and Norbert Christian Wolf (Cologne, Weimar, and Vienna: Böhlau, 2016), 77.
 - 11 Wilhelm Voßkamp, "Klassik als Epoche: Zur Typologie und Funktion der Weimarer Klassik," in *Epochenschwelle und Epochenbewußtsein*, ed. Reinhart Herzog and Reinhart Koselleck (Munich: Fink, 1987), 496.
 - 12 Schings, "*Laokoon* und *La Mort de Marat*," 99.
 - 13 Thomas B. Settle, "Galileo and Early Experimentation," in *Springs of Scientific Creativity: Essays on Founders of Modern Science*, ed. Aris Rutherford, H. Ted Davis, and Roger H. Stuewer (Minneapolis: University of Minnesota Press, 1983), 3–20.
 - 14 Francis Bacon, *The New Organon*, ed. Lisa Jardine and Michael Silverthorne (Cambridge: Cambridge University Press, 2000), 27.
 - 15 On eighteenth-century self-experimentation, see Joan Steigerwald, "The Subject as Instrument: Galvanic Experiments, Organic Apparatus and the Problems of Calibration," in *The Uses of Humans in Experiment: Perspectives from the 17th to the 20th Century*, ed. Erika Dyck and Larry Stewart (Leiden and Boston, MA: Brill Rodopi, 2016), 80–110.
 - 16 Friedrich Wilhelm Joseph Schelling, *Einleitung zu dem Entwurf eines Systems der Naturphilosophie: Ueber den Begriff der spekulativen Physik und die innere Organisation eines Systems dieser Wissenschaft*, in *Ausgewählte Werke*, Vol. 1, ed. Manfred Frank, (Frankfurt am Main: Suhrkamp, 1985), 344. See also Robert J. Richards, *The Romantic Conception of Life: Science and Philosophy in the Age of Goethe* (Chicago, IL and London: The University of Chicago Press, 2002), 140–145.
 - 17 Hans-Joachim Mähl, "Einleitung," in Novalis, *Schriften: Die Werke Friedrich von Hardenbergs*, 2nd ed., Vol. 3, ed. Paul Kluckhohn and Richard Samuel (Stuttgart: Kohlhammer, 1968), 238–241. Novalis's sources are listed in the commentaries, 1002–1010.
 - 18 Novalis, *Das allgemeine Brouillon*, in *Schriften*, Vol. 3, 256 (#89), 357–358 (#529).
 - 19 H. B. Nisbet, *Goethe and the Scientific Tradition* (London: Institute of Germanic Studies, University of London, 1972), 6–22.
 - 20 Dorothea Kuhn, "Das Prinzip der autobiographischen Form in Goethes Schriftenreihe 'Zur Naturwissenschaft überhaupt, besonders zur Morphologie,'" in *Typus und Metamorphose: Goethe-Studien*, ed. Renate Grumach (Marbach: Deutsche Schillergesellschaft, 1988), 55.
 - 21 Jocelyn Holland, *German Romanticism and Science: The Procreative Poetics of Goethe, Novalis, and Ritter* (New York and London: Routledge, 2009), 44–49.

- 22 Jörn Göres, “‘Wie wahr! Wie seiend!’: Reflexionen zu Goethes Italien-Reise,” *Goethe Jahrbuch* 105 (1988): 25–26.
- 23 See John Neubauer’s comments in MA 4.2:1075–1077.
- 24 Wolfgang Krohn, “Goethes Versuch über den Versuch,” in *Goethe und die Verzeitlichung der Natur*, ed. Peter Matussek (Munich: Beck, 1998), 399.
- 25 Krohn, “Goethes Versuch über den Versuch,” 404.
- 26 Friedrich Steinle, “‘Das Nächste ans Nächste reihen’: Goethe, Newton und das Experiment,” in *Grenzüberschreitende Diskurse: Festgabe für Hubert Treiber*, ed. Kay Waechter (Wiesbaden: Harrassowitz, 2010), 63–65.
- 27 Friedrich Steinle, “Exploratives vs. theoriebestimmtes Experimentieren: Ampères erste Arbeiten zum Elektromagnetismus,” in *Experimental Essays—Versuche zum Experiment*, ed. Michael Heidelberger and Friedrich Steinle (Baden-Baden: Nomos Verlag, 1998), 272–297.
- 28 Steinle, “‘Das Nächste ans Nächste reihen,’” 59.
- 29 As Sebastian Meixner has shown, there is a narrative quality to the act of sequentialization which also involves imagination and wit. “In such a manner are the subjective and objective method mediated,” he concludes. Sebastian Meixner, *Narratologie und Epistemologie: Studien zu Goethes frühen Erzählungen* (Berlin and Boston, MA: de Gruyter, 2019), 307. See also Eva Geulen, “Keeping it Simple, Making it Difficult: Morphologische Reihen bei Goethe und anderen,” in *Komplexität und Einfachheit: DFG-Symposium 2015*, ed. Albrecht Koschorke (Stuttgart: Metzler, 2017), 357–373. Hartmut Böhme, on the other hand, has emphasized temporalization of nature as the result of Goethe’s Italian journey. Hartmut Böhme, “Goethes Erde zwischen Natur und Geschichte—Erfahrungen der *Italienischen Reise*,” in *Natur und Figur: Goethe im Kontext* (Paderborn: Fink, 2016), 55–83.
- 30 Cf. Steinle, “‘Das Nächste ans Nächste reihen,’” 57–59.
- 31 John Neubauer, “Einführung,” MA 12:829–833.
- 32 James M. Van der Laan, “Of Goethe, Essays, and Experiments,” *Deutsche Vierteljahrschrift für Literaturwissenschaft und Geistesgeschichte* 64 (1990): 49. Sabine Schimma, correspondingly, refers to Goethe’s “method of pluralization.” Sabine Schimma, *Blickbildungen: Ästhetik und Experiment in Goethes Farbstudien* (Cologne, Weimar, and Vienna: Böhlau, 2015), 53.
- 33 On the concept of *Reihe*, see also Chapter 11 of this volume.
- 34 Joseph Vogl, “Bemerkung über Goethes Empirismus,” in *Versuchsanordnungen 1800*, ed. Sabine Schimma and Joseph Vogl (Zurich and Berlin: Diaphanes, 2009), 120. See also Nisbet, *Goethe and the Scientific Tradition*, 39–42.
- 35 Dalia Nassar, “Understanding as Explanation: The Significance of Herder’s and Goethe’s Science of Describing,” in *Herder: Philosophy and Anthropology*, ed. Anik Waldow and Nigel DeSouza (Oxford: Oxford University Press, 2017), 119.
- 36 On Goethe’s conception of the idea, see Jonas Maatsch, “Ideen mit den Augen sehen: Anschauliche Erkenntnis bei Goethe,” in *Weimarer Klassik: Kultur des Sinnlichen*, ed. Sebastian Böhmer, Christiane Holm, Veronika Spinner, and Thorsten Valk (Munich: Deutscher Kunstverlag, 2012), 72.
- 37 Immanuel Kant, *Kritik der reinen Vernunft* 2, in *Werkausgabe*, Vol. 4, ed. Wilhelm Weischedel (Frankfurt am Main: Suhrkamp, 1974), 563–582.
- 38 Schimma, *Blickbildungen*, 74.
- 39 Schimma, *Blickbildungen*, 86.
- 40 See Karl Philipp Moritz, “Versuch einer Vereinigung aller schönen Künste und Wissenschaften unter dem Begriff des in sich selbst Vollendeten,” in *Schriften zur Ästhetik und Poetik: Kritische Ausgabe*, ed. Hans Joachim Schrimpf (Tübingen: Niemeyer, 1962), 3–9. The amount of studies on Moritz and aesthetic autonomy is extensive. See, for instance, Borchmeyer,

- Weimarer Klassik, 140–141; Alessandro Costazza, *Schönheit und Nützlichkeit: Karl Philipp Moritz und die Ästhetik des 18. Jahrhunderts* (Bern: Peter Lang, 1996); and Martha Woodmansee, *The Author, Art, and the Market: Rereading the History of Aesthetics* (New York: Columbia University Press, 1994), 11–33.
- 41 See, e.g., Géza von Molnár, “Goethes Studium der *Kritik der Urteilkraft*: Eine Zusammenstellung nach den Eintragungen in seinem Handexemplar,” *Goethe Yearbook* 2 (1984): 137–222. Sauder’s argument in “Ästhetische Autonomie als Norm der Weimarer Klassik” (143–144) that “Goethe endorsed ‘disinterestedness’ in art reception, postulated by Kant,” is not convincing since the letter to Carl Friedrich Zelter (January 29, 1830) to which Sauder refers in no way, shape, or form addresses the problem of disinterestedness. Cf. Goethe, *Werke*, Vol. IV/46, 223.
- 42 For a more detailed line of argument, see chaps. 4 and 5 of my book *Grenzerfahrungen: Studien zu Goethes Ästhetik* (Heidelberg: Winter, 2018), 129–220.
- 43 Goethe’s sensitivity for the material aspects of art, however, comes to the fore in essays such as “Material der bildenden Kunst” (1788) and “Baukunst” (1795).
- 44 Johannes Grave and Jonas Maatsch, “Das Allgemeine im Anschaulichen: Morphologische Reihen in Goethes Sammlungen,” in *Heikle Balancen: Die Weimarer Klassik im Prozess der Moderne*, ed. Thorsten Valk (Göttingen: Wallstein, 2014), 297.
- 45 Johannes Grave, *Der “ideale Kunstkörper”: Johann Wolfgang Goethe als Sammler von Druckgraphiken und Zeichnungen* (Göttingen: Vandenhoeck & Ruprecht, 2006), 236.
- 46 Ernst Osterkamp, “‘Aus dem Gesichtspunkt reiner Menschlichkeit’: Goethes Preisaufgaben für bildende Künstler 1799–1805,” in *Goethe und die Kunst*, ed. Sabine Schulze (Stuttgart: Hatje, 1994), 310. For an extensive documentation of the project, see Walther Scheidig, *Goethes Preisaufgaben für bildende Künstler 1799–1805* (Weimar: Böhlau, 1957).
- 47 See Scheidig, *Goethes Preisaufgaben für bildende Künstler 1799–1805*, 33–34; and Osterkamp, “‘Aus dem Gesichtspunkt reiner Menschlichkeit,’” 318.
- 48 Ernst Osterkamp, *Im Buchstabenbilde: Studien zum Verfahren Goethescher Bildbeschreibungen* (Stuttgart: Metzler, 1991), 310.
- 49 Gerhard Sauder, on the other hand, refers more belligerently to Goethe’s “fight [*Kampf*] against the public.” Sauder, “Ästhetische Autonomie als Norm der Weimarer Klassik,” 143.
- 50 December 20, 1786. Goethe, *Werke*, Vol. IV/8, 100.
- 51 On analogy as exploratory knowledge, see Hans Dietrich Irmscher, “Witz und Analogie als Instrumente des entdeckenden Erkennens,” in “*Weitstrahlendes Denken: Studien zu Johann Gottfried Herder*,” ed. Marion Heinz and Violetta Stolz (Würzburg: Königshausen & Neumann, 2009), 207–235. On Goethe’s Herder-inspired use of the analogical method, see Nassar, “Understanding as Explanation,” 117–120.

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