ARTHUR ZAJONC

# Spirituality

# in Higher Education

# **Overcoming the Divide**

Adapted from a paper given at AAC&U's conference on Spirituality and Learning: Refining Meaning, Value, and Inclusion in Higher Education, April 2002

VISITING PARIS FIRST IN 1245-48 while a student of Albertus Magnus, Thomas Aguinas listened not only to the teachings of orthodox masters at the cathedral school of Notre Dame de Paris, but like so many others he went as well to the heterodox lectures offered in the famous rue du Fouarre or "street of straw," as Dante called it, that ran beside St. Julien le Pauvre on the Left Bank in the Latin Quarter. We can imagine the young Thomas seated in the straw-strewn street, where teachers and students discussed forbidden tenets of Greek philosophy in the shadows of the great cathedral school of Paris. Thomas himself would later teach in Paris and compose his synthesis of Christian theology and secular Greek philosophy, which ironically was roundly condemned for a time. During precisely this period the Western university emerged from the womb of the cathedral schools of Europe, and the new institutions owed much to the heretical open-air disputations that took place in the street of straw. Caught between the powerful forces of dogmatic Christian theology and the newly recovered secular philosophy of Aristotle, it required figures such as Aquinas to propose a

ARTHUR ZAJONC is professor of physics at Amherst College.

plausible resolution to the so-called Scholastic Controversy.

Today we find ourselves at the onset of a "controversy" concerning the place of spirituality in our now mature secular college and university system that is similar to that of the thirteenth century. I feel the implications of the current interest in spirituality in higher education may prove to be of comparable significance for the future of liberal education. We are being asked to examine the oftenunacknowledged presuppositions that guide higher education and that can stifle the legitimate exploration of our larger human concerns, including what we can call our moral and spiritual concerns. As we seek to address the essentials of art and science, or as we investigate the pressing issues of the ethics of biotechnology or environmental and social justice issues, we should make use of the deepest insights we can access. Further, many faculty and administrators are exploring the inclusion of contemplative practices in their work and are finding them of genuine benefit in teaching, research, and student life. These are developments in which I have been involved for many years, and which I support. Yet, as the new situation unfolds, it will be imperative to consider carefully the basis for inclusion of the contemplative and spiritual, and the means by which we accomplish this end.

I wish to make clear at the outset that I am not advocating a return to a religious basis for liberal learning. While I support religious pluralism and religious life on our campuses outside the classroom, I am suggesting that a new and more radical re-conception is called for, one that reframes the knowledge project in the academy so as to include contemplative methods and the insights that can result from these methods of inquiry. By the word "spiritual" I am referring to those immaterial dimensions of life that give it meaning and purpose, and



which have lived at the heart of liberal education since its inception. I am advocating for appropriate ways of including the contemplative and spiritual within the disciplines themselves. While we can learn much from our Christian, Buddhist, and other religious colleagues, we can and should find ways of transforming the disciplines themselves in the light of a broader, contemplative, and spiritual perspective.

One issue above all others must be addressed for this transformation to occur. If spirituality is to become a legitimate concern within the academy, then it must be properly reconciled with the central objectives of liberal higher education. In 1644 the founders of Harvard adopted the single Latin word Veritas or Truth as their motto. I would argue that if spirituality is to be seen as a legitimate part of liberal education then we must demonstrate its relationship to Veritas. In the absence of such an understanding, spirituality will always be construed as extracurricular or a complement to education at best, and a delusory distraction at worst. Therefore, while the scope of the relationship between spirituality and higher education is surely far broader, I will concentrate my remarks on the primary relationship between spirituality and the search for true insights into our world and ourselves, which is the heart of our teaching and research. In my view, the greatest accomplishments of the arts and sciences have relied on this source, and as scholars and teachers, we can attend to it as well.

### **Emerging trend**

Several outer signs indicate that a quiet but significant shift is underway in the attitudes and work of many faculty, staff, and academic administrators. With increasing frequency they are speaking openly about their interest in the contemplative and spiritual dimensions of higher education and are taking steps to explore ways to integrate them sensibly into their work. I cannot provide a comprehensive overview here, but a sample will indicate the deep reconsideration currently taking place across campuses of all kinds: public and private universities, non-denominational liberal arts colleges, professional schools, as well as faith-based institutions of higher education.

AAC&U's 2002 conference on "Spirituality and Learning" was but the most recent in a series of such conferences. President Diana Chapman Walsh (Wellesley College) and

Chancellor David Scott (University of Massachusetts at Amherst) sponsored landmark conferences on spirituality in higher education in 1999 and 2000 respectively, to which many hundreds of academics came.

One of the most interesting initiatives has been the Academic Program of the Center for Contemplative Mind in Society. Over the last six years they have worked closely with the American Council of Learned Societies (ACLS) to grant 100 "contemplative practice fellowships" to full-time faculty to support the development of courses at over eighty institutions ranging from poetry and contemplation at West Point, to contemplating the cosmos at UC Santa Cruz, and contemplative practice and health at the University of Arkansas. As a member of the Academic Program Committee and a reader of the many applications submitted to the ACLS each year, I was consistently struck by the promise evidenced in each applicant's efforts to integrate the contemplative into their specialized subject area. In retrospect students and the faculty giving these courses have judged most of them highly successful.

In a separate Contemplative Law Program, the Center works with law students and professors from Yale, and increasingly from other law schools in New England and the Bay area. They participate in a "law retreat" that teaches law students and professors sitting and walking meditation, yoga and exercise, as well as engaging them in deep conversations about how to integrate contemplative practices into a life of law. In a related meeting, in March 2002, the Harvard Negotiation Law Review hosted a symposium focused on the connections between mindfulness meditation and dispute resolution. <sup>2</sup>

Another locus of the exploration has been the relationship between science, values, and spirituality. To this end several organizations and institutes have emerged in recent years dedicated to the understanding and development of science within a contemplative and spiritual framework. I will mention two of which I am a part, although there are many others as well.

• The Mind and Life Institute has organized several intensive five-day dialogues with scientists, the Dalai Lama, and other Buddhist scholars on themes such as destructive emotions, the new physics, and the study of consciousness.<sup>3</sup>

 The Kira Institute has held five summer schools bringing distinguished faculty in the sciences and philosophy together with talented graduate students to explore science, values, and spirituality.<sup>4</sup>

In a related development, over the past two years Frederique Apffel-Marglin (Smith College, anthropology) and I have instigated a Five College Faculty Seminar on New Epistemologies and Contemplation. It explores the ways in which contemplation can provide novel avenues for deepening our teaching and research. The circle of Five College faculty now involved has reached sixty, and it has stimulated even larger initiatives among Five College staff and administrators. Events on our campuses have drawn close to 1,000 students, staff, and faculty participants.

I have only been able to touch on a few of the outward signs that are known to me and which signal a deep engagement with the issue of spirituality and higher education.

## **Barriers and maps**

Formidable barriers block the integration of contemplation and spirituality into higher education. At least in the U.S., the constitutional and legal barriers even in public institutions do not appear to be a real problem, at least if one's approach is not based in a specific faith tradition. We are teaching young adults, not children, and so different standards than in elementary schools apply. The institutional barriers that do exist are mostly informal and take the form of academic peer pressure to eschew approaches involving spiritual or even moral and philosophical analysis of the disciplines. We should not underestimate the powerful effect this pressure has on the open exploration of important issues within the disciplines, especially by junior faculty. This is all the more ironic, and even tragic, because the academy ostensibly commits itself to completely open inquiry, yet quietly dismisses at the outset certain domains or methodologies as out-of-bounds.

But to my mind the real barriers are conceptual. The two leading issues I term the "wrong map" problem and the "epistemological challenge." In my thirty years of work with contemplation, spirituality, and science, these appear to me the crucial issues. When considering the relationship between spirituality and higher education an intellectual map pops to mind that looks something like the following.

### **Wrong Map**

Religion | Science Faith | Reason Moral Code | Natural Knowledge Values | Facts

Neo-Orthodox—Karl Barth NOMA—Stephen J. Gould

Credit: Arthur Zajonc

Religion, faith, moral code, values, etc. are on one side while science, reason, natural knowledge, and facts are on the other side. When asked what the goal of liberal education is, most would point to the side of knowledge and facts. We are not in the business of promulgating a faith or even a specific set of moral positions, although we may treat the difficulties of moral reasoning in a postmodern landscape. Spirituality is unreflectively assigned to the left side of the divide, lumped together with religion. Yet, I maintain that this division is hasty and improper. It presumes that there is no empirical dimension to spirituality, nor the possibility of spiritual cognition or insight. In my own experience the evidence is to the contrary, and I am supported in this by diverse traditions of contemplative practice. Spirituality cannot be pigeonholed on one side of the map or the other but has a place in both. I will return to the empirical and cognitive dimensions of spirituality shortly.

The "wrong map" goes back at least as far as Luther and Melanchthon in the West, but it has received considerable support more recently, for example, through the writings of the Protestant theologian Karl Barth and the distinguished Harvard biologist Stephen Jay Gould. Barth's "neo-orthodoxy" distinguishes sharply between two realms of truth, one given to natural scientists through reasoning from facts, and the other given to theologians who explicate revealed moral and religious truths.5 Barth stood firmly behind this division, going so far as refusing to participate in the so-called "Goettingen conversations" with nuclear physicists on the ethical implications of atomic energy. Only theologians

could speak to moral issues, he argued, so there could be nothing to discuss with physicists whose sole domain of competency was physics. Likewise in one of his last books, Gould advocated for NOMA or Non-Overlapping Magisteria dividing natural knowledge and moral judgment from one another in a radical way. Thus, from the side of science as well as theology once again the wrong map is reinforced. It stands like a peace treaty between warring factions defining the territory over which each party asserts control.

Within a limited range of application and in certain historical situations, one can appreciate the utility of this arrangement. We should not, however, raise it from a heuristic compromise to an all-encompassing principle. In what follows I will argue, quite to the contrary of Gould and Barth, that it is not only possible but in most instances highly desirable to seek a cognitive spirituality that redraws the map they have reified. On this new map we locate spirituality on the side of knowledge and veritas. Within this reconfigured framework the inclusion of spiritual considerations into teaching and research is not only possible but also of special significance. We obtain thereby a more comprehensive understanding and appreciation of every field. Extending our methods of inquiry to include contemplative forms of engagement only enhances the study of poetry, the arts, and natural phenomena. Neglecting the contemplative and spiritual aspects of life is equivalent to neglecting half the facts, as we make crucial decisions concerning health care, the education of our children, and the formation of economic policies that shape so much of our common life around the globe. All these areas and many others beg to have the deepest and fullest research possible, including the pertinent contemplative insights and spiritual considerations, prior to making decisions. We should be educating for this comprehensive view.

### Meeting the epistemological challenge

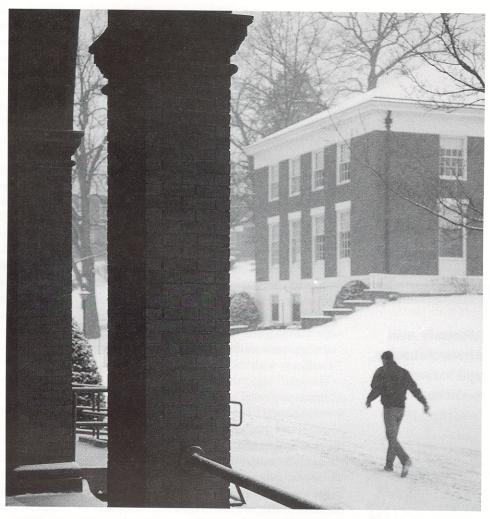
In order to redraw the map in a manner better suited to higher education we must meet the "epistemological challenge." That is, we need to offer a plausible basis for knowledge that can extend beyond a reductionist, materialistic ontology to one that is inclusive of contemplative and spiritual experience. In the space available I can offer little more that an

indication of how these foundations can indeed be established. My fundamental line of reasoning is that we have neglected one aspect of cognition in favor of another. Once we have redressed this imbalance by including both, then the basis for knowledge will be sufficiently broad to fully include aesthetic, moral, and spiritual cognition. Moreover, it will become clear that we have made use of this modality of cognition throughout human history, but we have recently discounted it or reduced it improperly to something else.

In our modern conception of cognition we have a well-developed treatment of analytical or critical reasoning generally modeled on computation. By contrast we have a poorly developed treatment of another dimension of cognition that is especially pertinent to contemplative insight, what we might call the synthetic capacity for perceptive judgment. The Platonists already distinguished between these two types of knowing, denoting ratiocination or logical reasoning by the term dianoia and contrasting it with the direct perception of truth they termed episteme.6 We find a parallel distinction in Indo-Tibetan Buddhist epistemology in their recognition of two forms of cognition, the first being "valid inference" and the second, knowledge attained via "direct perception." In Kant there is an analogous distinction between

Verstand and Vernunft that was picked up and developed by Goethe and Coleridge.8 In order to include contemplative and spiritual insights in the full view of knowledge we will need both.

An essential part of liberal learning is not only mastery of the methodologies of our disciplines, but also knowledge of their limitations and problems. Rational analysis is a powerful methodology. In science, and increasingly in other disciplines, we analyze the world by using what the quantum physicist Erwin Schroedinger called the principle of ob-



# **Extending our methods of inquiry to include** contemplative forms of engagement only enhances the study of poetry, the arts, and natural phenomena

jectification, which removes the "Subject of Cognizance" from the world. In such a view the objects around us are objectively real, but now lack qualia. That is, our experience is unreal; and reality itself is devoid of all qualities. Schroedinger like many before and after him, saw this view as deeply problematic, leading to the insoluble conundrums of the mindbody problem and its correlate in quantum physics, the measurement problem.9

Models of reality developed in this way have great utility, but if we take them literally. they threaten to become "idols." That is, we

(Above) **Amherst College** 

# "We only see what we animate, and animate what we see."

-Emerson



Hill, W.E. "My Wife and My Mother-in-Law."—Puck—16, 11, Nov. 1915

take the models offered by science for the realities themselves, just as the statue of Zeus can become mistaken for the god himself. Lord Kelvin, the nineteenth-century physicist, demanded a mechanical model before he would accept a theory of physics. Alfred North Whitehead termed this "the fallacy of misplaced concreteness." The sign and statue are meant to point beyond themselves. Likewise analysis is meant to point beyond itself. The models are not the point, but rather they represent to us a hidden intelligibility of the world.

Johann Wolfgang von Goethe's criticism of nineteenth-century science is still helpful today in making this distinction. First we need to understand the rightful role of scientific models or "hypotheses" as they were called in Goethe's time. Goethe wrote:

Hypotheses are like the scaffolding erected in front of a building, to be dismantled when the building is completed. To the worker the scaffolding is indispensable, but he must not confuse it with the building itself.

The scaffolding that surrounds a building allows us to "build" an understanding of it, but the scaffolding or model itself is not the endpoint. Having come to know in this limited way, we should take down the scaffolding (i.e., gradually dismantle or see through the model) in order to experience the building directly.

Far more important than the model is the capacity to see, to behold directly, the operative principle in nature. The root Greek meaning of the word *theoria* is "to behold," not to compute. In Elsewhere Goethe remarked,

Yet how difficult it is not to put the sign in the place of the thing; how difficult to keep the being (das Wesen) always livingly before one and not to slay it with the word.

Here Goethe is asking for a direct relationship to that which is to be known. As in the Asian contemplative traditions he valued "direct perception" more highly than valid inference. Can one meet the idea perceptually? How can we keep the Being before us? Not with dianoia or critical reasoning alone.

#### **Cultivating contemplative insight**

By putting more emphasis on *episteme*, to redress the imbalance in our epistemology, we open the path to the inclusion of contemplation as a way of knowing. As we seek to extend our conception of knowing to include contemplative insights, we can keep in view

its essential features. In barest outline the elements of this methodology are

- 1. Experience is *not* to be explained away in terms of so-called "primary qualities," but rather it is granted central significance.
- 2. As opposed to eliminating the "subject of cognizance," we recognize that cognition is always participatory.
- 3. The ultimate goal of cognition is direct perception, which requires the cultivation of suitable organs in us capable of "seeing" what would remain hidden without them. In this way experience becomes explanatory.
- 4. The three elements above are as valid for spiritual experience and insight as they are for sense-based experience and insight.
- 5. Finally, when we act, it can be on the basis of a moral judgment grounded in an empathetic connection to a lived world. This contrasts with action governed by a calculus of utility or cost-benefit analysis.

Key to the above method is the idea that experience can become explanatory. How is this possible? For experience to become explanatory there must be a hierarchy of experience. We cannot explain something at the same level as the original experience. Working with nature, Goethe saw his method as comprising three levels of experience ranging from everyday observation through scientific experience in which we "vary the condition of appearance," and culminating in archetypal phenomena, which should be the limit. These archetypal phenomena are the self-evident manifestation of the governing principles active in the world. In them we experience why the world is organized as it is. These archetypal phenomena can be as simple as the epiphany Newton had in seeing the apple falling and the Moon passing overhead as the same motion. Getting students to experience this same epiphany is a perennial challenge for the teachers of every subject. The burst of insight may occur in physics, but it can equally be the breakthrough in viewing a work of art by means of what the art historian Joel Upton terms "beholding" and Deborah Salter-Klimburg calls "contemplative seeing."12

In a manner similar to Goethe's three levels of phenomena, spiritual experiences are traditionally described in terms of levels. The Austrian spiritual philosopher Rudolf Steiner, for example, in speaking about states of spiritual or

meditative awareness described a hierarchy of supersensible experiences. He distinguished three levels of experience beyond sense experience culminating in the non-dual state of direct spiritual perception he termed Intuition. Buddhism likewise describes various levels of meditative awareness and experience termed dhyāna (in Sanskrit) or jhāna (in Pahli).

We have been describing an empirical or phenomenological method of inquiry that is applicable to a wide range of disciplines and domains of experience. I believe that this method, in modified form, can be of value in the humanities, arts, and sciences. Goethe called it a "delicate empiricism:"

There is a delicate empiricism that makes itself utterly identical with the object, thereby becoming true theory. But this enhancement of our mental powers belongs to a highly evolved age.

#### **Education as transformation**

The real voyage of discovery consists not in seeking new landscapes, but in having new eyes. (Marcel Proust)

Goethe's delicate empiricism involves a participatory engagement in which one ultimately becomes "identical with the object" permitting a form of direct encounter, what Goethe calls true theory. However, as he explains, this encounter presupposes an enhancement of our mental powers, that is, the formation of capacities well suited to insightful engagement with the particular phenomenon at hand.

All cognition is in some measure participatory. Visual illusions like the ones below illustrate the essential contribution we make to cognition. One can see the first figure as either a young maid with her head turned away from us, or as an old hag with a large bulbous nose. The lines on the page are unchanged but their meaning changes completely, based on the character of our attention. We clearly bring something crucial into seeing. Emerson writes, "We only see what we animate, and we animate what we see." Although often unconscious of our active role in cognition, it is omnipresent. For this reason education should be less concerned with teaching information or skills, and much more concerned with shaping and extending the scope of our faculties for knowing, for true theory as beholding. As Goethe said, "All efficacy lies in the apercu."

by which he emphasized the central importance of direct insight.<sup>15</sup>

I believe that discoveries in science, artistic breakthroughs, and even the more common successes we experience in the classroom are instances of an *aperçu* breaking into our habitual awareness with novel cognitive insights. To quote Emerson once again, "No discovery is ever made except by poetic perception."

How do we fashion the new eyes that lead to the novel *aperçu*? The very act of attention shapes these capacities. In Goethe's words, "Every object well contemplated creates an organ for its perception."

In a letter to Emil Bernard, Cezanne wrote: "Nature is the true teacher, and through looking and working we must make ourselves concentric to her." That is to say, we start eccentric to nature, off center. Through our constant attention to her we become concentric, we reshape ourselves with every stroke on the canvas to be in alignment with her. Goethe was amazed by our malleability.

To grasp the phenomena, to fix them to experiments, to arrange the experiences and know the possible modes of representation of them ... demands a molding of the poor human ego, a transformation so great that I never should have believed it possible.

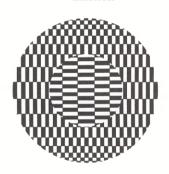
I view the transformation of the self as the highest form of education.

Of particular importance in this context is the scope suggested by the above understanding of cognition. Nothing I have said limits the appearance of an *aperçu* to the world of the senses. We can attend to phenomena of all kinds. By working with the phenomena that arise in contemplative states, for example, the above methodology holds out the promise of comparable spiritual insights. Of course we must, as Goethe says, first enhance the mental powers required, but then the schooling of capacities for insight is at the core of contemplative traditions.

With this fuller, more comprehensive understanding of cognition we can meet the "epistemological challenge." Contemplation and spirituality need not be viewed as extracurricular, nor lumped with the activity of clergy on campuses. Rather every discipline—be it art or physics—can be deepened by sustained, contemplative engagement with the phenomena of that field. The vistas that open up will enrich our students and us.

# "No discovery is ever made except by poetic perception"

—Emerson



Ouchi, H.—Japanese Optical and Geometric Art—New York: Dover, 1990

# Contemplative dimensions of music and medicine

I could enumerate many examples in which higher education has been enriched by the contemplative methodology I have described above. Two examples from the ACLS Contemplative Practice Fellowship program will have to suffice. Based on his success in teaching music and meditation, Professor Edward Sarath developed a new major at the University of Michigan School of Music: the Bachelor of Fine Arts in Jazz and Contemplative Studies. In addition to the usual range of courses in music and performance, it requires four semesters of contemplative practice seminars and a course on composition, creativity, and contemplation. In his teaching Sarath gives special attention to "peak creative experience," what I have called, using Goethe's term, the moment of apercu.

At Penn State University College of Medicine, Professor Anne Hunsaker Hawkins teaches an oversubscribed course on "Contemplative Practice and the Art of Medicine." She explicitly develops an epistemological stance like my own, introducing students to contemplative practices that heighten intuitive awareness, attentive listening, and contemplative quiescence as a complement to the traditional analytic approach that dominates medicine.

Courses such as these have nothing to do with preaching religious dogma or advancing particular faith traditions, but rather they seek to extend our powers of attention, compassion, and skillful action based on insights that include all aspects of life, not only those consistent with today's reductive model of ourselves and our world. I am urging a phenomenology of the spirit, accessible via faculties schooled for contemplative insight.

The thirteenth century heretical discourses that took place in the "street of straw" led to the founding of the Sorbonne and the birth of the modern university. The tables are now turned. In recent decades spirituality in higher education has been an unspoken heresy. But stimulating conversations between faculty and with students are afoot. The straw is in the street once again. I wonder what will emerge from the discourse this time?

#### NOTES

- 1. For details of the Center's several programs see its Web site at www.contemplativemind.org. It states that, "The Contemplative Practice Fellowships seek to restore the critical contribution contemplative practices can make to the life of the mind. This program will support the study of contemplation as a historical phenomenon, as a category of religious experience, and as a method to develop concentration, deepen understanding, and cultivate awareness."
- 2. Leonard L. Riskin. Spring 2002. The contemplative lawyer: On the potential contributions of mindfulness meditation to law students, lawyers, and their clients. *Harvard Negotiation Law Review*, 7: 1-66.
- 3. See their Web site at www.mindandlife.org
- See their Web site at www.kira.org.
- See Douglas Sloan. 1994. Faith and knowledge. Louisville, KY: Westminster John Knox Press, especially 191 ff.
- Plato's Republic, 511; and discussed by Werner Heisenberg. 1966. On the history of the physical interpretation of nature. Philosophic problems of nuclear science. Greenwich, CT: Fawcett Publications, 34-37.
- See Georges B. Dreyfus. 1997. Recognizing reality. Albany, NY: SUNY Press. The high faculty of direct perception is considered to be completely non-conceptual.
- 8. Verstand brings sense experience into clear concepts, while Vernunft knits together these diverse concepts into a higher unity. See Immanuel Kant. 1956. Die Drei Kritiken, Stuttgart: Alfred Kroner Verlag, 141. On Goethe, see David Seamon and Arthur Zajonc. 1998. Goethe's way of science. Albany, NY: SUNY Press, and Rudolf Steiner. 1968. Theory of knowledge implicit in Goethe's world conception. NY: Anthroposophic Press, Chapter 12. On Coleridge see Owen Barfield. 1971. What Coleridge thought. Middletown, CT: Wesleyan University Press.
- Erwin Schroedinger. 1967. Mind and matter. In What is life? And mind and matter, Cambridge: Cambridge University Press, Chapter 3.
- Owen Barfield. n.d. Saving the appearances. NY: Harcourt, Brace & World.
- 11. In my book Catching the Light (NY: Oxford University Press,1993), I explore multiple models of light: scientific, religious, literary, and mythic.
- 12. Private communications.
- 13. Rudolf Steiner. 1967. The stages of higher knowledge. NY: Anthroposophic Press.
- 14. Paul Griffiths. 1983. Buddhist Jhãna, Religion, 13: 55-68.
- 15. Goethe in a letter to Frederic Soret, December 30, 1823. Reference for this and subsequent quotes by Goethe can be found in my volume Goethe's Way of Science.