News from the Institute

Our Foundation Year Program



This PAST SUMMER WAS A TIME OF LIVELY ACTIVITY at the Institute. In June, eighteen students joined us for the opening two-week intensive of our 2019–2020 foundation year course. Then, in July, we came together with the seventeen students from our first foundation year course (the 2018– 2019 cohort) and brought that work to a close with a final two-week session.

Participants, from young to old, came from differing backgrounds; there were teachers, professors, writers, graduate students, scientists, naturalists. Working together and sharing with others during the year and in the intensives was crucial. A mother who homeschools her children stated that "having the time and guidance to go through, practice, and see the efficacy of this work has been such a gift, and was made all the more real and meaningful by having a varied community with which to experience it."

We were excited to see that this program has become a significant way for people to deepen not only their understanding of Goethean Science, but also their practice of it.

It is important that the intensives are practice-based — lots of observing, individually and in groups; dialogue about texts in small groups; reflections on method that relate directly to the experiences we've had together; artistic work (mainly working in clay) to engage in the process of forming and transformation. In this way, participants experience and struggle with the actual doing of participatory, phenomena-based science and don't just hear about it from teachers.

Each student is asked to carry out an independent, observation-based research project during the year in between the two intensives. While it is clear that this is no easy task — given the full lives people lead — those who were able to persevere found that the project was essential for them to ground the approach in their own work. A young science teacher who studied

an oak tree and its co-inhabitants during the year remarked, "My understanding of what it means to know something has changed. It is more abut perception and the work with the imagination, based in the senses. There's a doorway through which the world becomes more beautiful. It's a re-connecting. I see a way and a process in which I can work in this direction."

Eleven of the participants from the first course gave engaging presentations about their independent research projects, which included the study of a number of different tree species, wild flowers, granite, shadows, sky colors, and medicinal plants.



We will begin a new year-long course in July, 2020. The first intensive for this course will run July 13–25, 2020, and the course will conclude with another intensive July 12–24, 2021. In between, participants will carry out independent research projects, while also studying and discussing selected texts related to phenomena-based science. For more information or to register, visit our website. Registration deadline is February 15, 2020. Space is limited, so we encourage you to apply early.





Below we share a few student comments about the courses:

[What has changed for me during the intensive?]

"Well. Everything. I saw more shades of sky yesterday than I have words for by far, more colors and quality of illumination than I knew existed, and, in general, have smashed my one-size-fits-all categories of things into an inexhaustible supply of the knowable."

– Business owner and participant in second foundation year course

[What has changed for me during the intensive?]

"My attention to detail, awareness of the process of perception itself, my faith in a whole range of phenomenological methods that I either did not know of or was not confident/patient enough to practice before this, and finally my trust in my own visceral experience as a resource I can use to guide inquiry."

– Dual Ph.D. candidate (informatics and cognitive science) and participant in second foundation year course

"In part, the value of this course (for me) has been the change from a more intellectual appreciation of Goethean science to experiencing [it] in a conscious, lived way. Having the luxury of enough time here to thoroughly make and review observations, and to relate them directly to ideas from readings, or experiences of the instructors, has been essential for that metamorphosis. The identification and modification of habits (of thought and action) takes time and repetition. Similarly, doing an independent project was an indispensable component. Through living with a phenomenon (the linden tree) for many months I came face to face with many of the habits that were obstacles to a 'fluid way of perceiving and thinking' and had to confront them directly. I am pleased and satisfied with the progress I made so far as a result, and more clearly recognize areas that need continued work."

- High school science teacher and participant in first foundation year course

Working with the Human Evolution Kit in Egypt



We recently received an email from Axel Ziemke, PhD, a Waldorf teacher from Germany. He had just finished teaching seminars on Goetheanism and Evolution to teachers and university staff at Heliopolis University for Sustainable Development in Cairo, Egypt. Heliopolis was founded in the last ten years as part of the SEKEM organization. SEKEM is a dynamic and prosperous initiative for holistic and sustainable development, which includes many farms, businesses, schools, and a medical clinic. Axel had used Craig's human evolution kit to work with the teachers, and in his email he reported back to us with some pictures and a short description of his experience. Here is what he wrote:

The focus of the seminar courses is both the teaching methods and the topic itself. In both respects the human evolution kit was really great. In Egypt, teaching is traditionally a monologue by the teacher; with the kit it was possible to show how students can be activated and discover things for themselves. Concerning the topic — Egypt is an Islamic country and human evolution is not really an accepted topic. Of course there were very openminded people, but many of them were not really ready to accept the fact that humans and monkeys could have common predecessors. Of course, I try to build bridges between the Koran and science (and, in fact, Goethe with his affinities to Islam is therefore a beautiful point of reference), but your kit was also very helpful there and has perhaps initiated a rethinking of these questions. In fact, all of the students were very interested.

> Cheers from Egypt, Axel

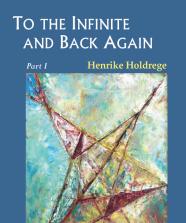


New Publications — In Print or In Process

A new book by Henrike. This summer we published Henrike Holdrege's *To the Infinite and Back Again — A Workbook in Projective Geometry, Part 1.*

Richly illustrated, this workbook is a practice-oriented introduction to projective geometry and its major theorems. The essential concepts of the infinitely distant elements — points, lines, and plane — that distinguish projective geometry from Euclidean geometry are carefully introduced. Readers are encouraged to engage with the subject through their own drawings. The numerous exercises that often build on each other foster clarity of thought and cultivate our power of exact imagination. As a fruit of Henrike's many years of teaching, the book is intended for self-study by the lay-person. It is also a rich resource for high school and college math teachers.

In working through the exercises, we learn to think transformatively and we experience a beautiful thought world in which ideas weave, grow, and metamorphose. We learn to think the mind-expanding concept of the infinitely distant, a concept that opens up whole new ways of understanding. We begin to see finite forms in a larger context when we conceive them in relation to the infinite.



A Workbook in Projective Geometry

You can find more information and order the book on our website or by contacting us by phone or email.

New chapters on organisms and their evolution from

Steve. A book-length project, now with the revised and still tentative title, *Evolution As It Was Meant To Be* — *And the Living Narratives That Tell Its Story*, continues to be the main focus of Steve's work. You will find one of the more recently completed chapters — "Our Bodies Are Formed Streams" — as the feature article in this issue of *In Context.*

The first half of the book, which includes this particular article, is titled The LIFE OF ORGANISMS. The second part, EXTENDING THE ORGANISM'S STORY: TOWARD AN EVOLUTIONARY NARRATIVE, begins with another recently completed chapter, "Let's Not Begin with Natural Selection." Everything associated with the project, including the ten or so chapters already written, is freely accessible online at http://natureinstitute.org/txt/st/bk.

Steve regards his overall work on molecular biology, genetics, and evolution over the past ten years as mere preparation for this current project. The largest challenge lies in the fact that the book covers such a wide range of highly specialized topics. Due to the rather massive and continuing research required by this variety, he estimates that the conclusion of his effort probably lies at least a year and a half away (if "conclusion" can ever be the right word for work dealing with many fields of inquiry currently being transformed by almost violent rates of change).

Steve hopes that interested readers will follow along with him in the online publication of these chapters.

The culmination of Craig's popular whole-organism studies. Every animal on earth has its own unique character — the slow sloth, the burrowing mole, the towering giraffe, the huge but flexible elephant. Each of the portrayals in Craig's new book (which will be published next year) is self-contained and illuminates the way of being of that animal. Readers will learn fascinating details and, importantly, see how all the features of an animal are interconnected, revealing the animal as a whole. They will also learn how each animal is intimately interwoven with the larger context that supports its life, a context that it also actively influences. Speaking of the book, Craig writes:

I have increasingly come to see that animals are beings who actively orchestrate their existence. You find dynamic and flexible orchestration in the most basic physiological processes, in the plasticity of development, in the maintenance of form, and in the malleability of behavior in relation to an ever-changing environment. Each type of animal is not only unique, but also intersects with other animals, plants, and the earth. Together, they weave a cohesive yet evolving world.

The book is refreshingly uncommon in its approach, although it has roots in the more general tradition of holistic biology and phenomenological science going back to the poet and scientist, Johann Wolfgang von Goethe. It is neither a popular natural history of animals nor a specialized treatise on animal biology, but rather opens up an integrative understanding you are unlikely to find elsewhere. Craig writes, again:

We do great injustice to animals when we depict them as evolutionary survival strategies, or project our alltoo-human characteristics onto them. With the openended question, 'Who are you?' and the will to let the animals themselves be my guide, I avoid the mechanistic and anthropomorphic interpretations that unfortunately take hold of so much writing about animals. My aim is to give voice to animals as beings rich in qualities that make them distinctive and irreplaceable.

At Home

• This past summer The Nature Institute twice offered twoweek intensives as part of our ongoing foundation year programs, *Encountering Nature and the Nature of Things*. You can read about these programs on page 6–7.

• At the end of September, Henrike gave a talk at the Institute entitled "The Drama of Knowing – Connecting or Disconnecting?" She discussed the phenomena-based scientific approach that the Institute has practiced for the last twentyone years and it's importance for the world today.

• Following Henrike's talk, Henrike and Craig led a daylong workshop on "Transformation through Nature Study" where they presented participants with a number of different natural phenomena. They also looked at the transformation of capacities that can happen through such direct experience — what Goethe points to with his expression "a new organ of perception."

• In October we were joined by board member Jan Kees Saltet and his wife Polly Saltet. Jan Kees gave a talk on Emily Dickinson, exploring through her work the path of meeting nature and soul without sentimentality but with earnest commitment, and Polly framed the evening with artistic movement in eurythmy.

Still Ahead

• In November, Craig and Henrike will again be traveling to Florianopolis, Brazil, to teach for two weeks. This will complete the second year-long program that they've now offered there, a course entitled "Seeing Nature Whole — Foundations of Goethean Science." The course is hosted by the Associação Sagres, a center for adult education. • In January Craig travels to Melbourne, Australia. He will give a series of keynote talks on "From Encounter to Insight: Pathways of Experience in Education" at a weeklong professional development conference for Waldorf high school teachers. He will also give a multi-day class on "A Delicate Empiricism: Practicing Goethean Inquiry." After the conference he will lead a public weekend workshop in Melbourne on the topic "Finding Our Humanity: Freedom and Our Responsibility for the Earth."

• In January and February, 2020, Henrike and Craig will work for three afternoons with the students in the local Alkion Center's teacher education program. The focus is on Goethean methods.

• "The Living Earth" will be the topic of our winter intensive February 16–20, 2020 (see the back cover of this issue).

• Next June and July we will conclude the current year-long foundation course (2019-2020) and begin another one (2020-2021). Read about the progress of this program on page 6–7 and consider joining us for the next course!

Our Staff

Linda Bolluyt, The Nature Institute's office manager since 2011, retired last May. In her position she carried out countless tasks with equanimity, friendliness, and an unceasing willingness to do what needed to be done. She was an integral part of The Nature Institute for eight and a half years, and we were sad to see her go.

Before leaving, Linda worked closely with her successor, Kristy King, to help her get to know the many tasks she is now taking on. Kristy has been with us since May and it has been a great pleasure to get to know her and begin our work together.

So, we send our deep thanks to Linda for all her years of colleagueship, and enthusiastically welcome Kristy to the many years of colleagueship to come!

Kristy King (left) and Linda Bolluyt

