

Reflections on a Watery Residency

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Continuing its substantive role as an incubator for post-graduate work in Goethean methods, the Institute welcomed oceanographer and Waldorf teacher Laura Rubiano-Gomez to a residency in late 2019. She spent nine weeks with us, investigating water phenomena to inform her goal of creating a more holistic, active, high school curriculum for hydrology. Here Laura writes revealingly about the experience:

“You cannot step twice into the same river.” – Heraclitus

The time I spent at The Nature Institute last fall afforded me the opportunity to experience water phenomena in a new and deeper way. In order to really understand how my engagement with water has shifted, I need to take a step back. It would not be a stretch to say that I have had a life-long fascination with water, and it came as no surprise to anyone when I decided to study environmental engineering and oceanography in college and graduate school. However, it might come as a surprise to those reading this, if I were to tell you that I had very few opportunities to observe water as part of my formal education.

During my junior year in college I took a class called “Transport Processes in the Environment.” The focus of this class was to understand the movement of water in river and lake systems, and by extension the fate and transport of dissolved pollutants. The class was coupled with a practical lab which served to highlight concepts already discussed during lectures, but at no point did we actually observe the flow of water in a river or lake. The closest we got was a group exercise where we were asked to devise a method to determine the flow of the Charles River in Cambridge, Massachusetts.

In graduate school I worked on a computer model that would simulate the water circulation in the Gulf of Maine, but at no point was I required, nor was it suggested, to “experience” the Gulf of Maine. I quickly realized computer modeling was not for me, and tried to get myself on as many research cruises as I could. Oceanographic cruises often involve being at sea for days and weeks at a time, and



while the focus is the collection of data via highly specialized instruments, at least you are out in the environment you are studying. It is important to note that one can receive a degree in oceanography or environmental engineering without ever setting foot in the field, without experiencing directly your subject of study.

It was probably during one of the many oceanographic cruises I participated in that I started to not just focus on the data collection aspect, but also on observing the water around me. If you are out far enough, there is a lot of water to observe, and by paying attention you are rewarded with unique experiences. Since then, I have

continued to devote care and attention to observing water wherever I go.

The intention for my time at The Nature Institute was to work on a phenomenological high school hydrology curriculum. My previous experiences teaching this topic have left me wanting to find a different and deeper way for the students to connect to water phenomena, and this became the driving force for basing the curriculum on phenomenology. In order to stay strictly with the phenomena, I started doing almost daily observations of the Agawamuck Creek, just a short walk from The Nature Institute.

As I started to organize and write down my thoughts, I realized I was bringing into my thinking and writing too many already-formed concepts. I was in the realm of abstraction instead of staying with the phenomena. At this point I went back to observing the creek. During this process it dawned on me that I had been approaching the creek with an agenda. I was looking for the conditions I already knew affected the flow of the creek, such as places where the creek bed narrowed

or became more shallow, and I also focused on areas where I expected the water to flow upstream. I had a list of concepts I wanted to include in my curriculum, and was actively seeking them out at the creek to the exclusion of everything else. The result was a feeling that I was imposing my expectations on the creek, and an inability to see anything new.

After this realization I chose a different way of relating to the creek. I would arrive each morning, and simply be. No agenda, no preconceived ideas about what I was seeing just an openness to reconnect. I walked along the banks or waded in and waited for something to catch my interest and then delve deeper. This new approach was key in helping me see aspects of water phenomena I might have seen before, but never paid attention to consciously.

One new aspect of water I noticed was the interaction between the water and the creek bed. I started to focus on places where the flow of water was being obstructed, whether by a rock, a log, or a twig. I observed how the movement of the water changed upstream and downstream of the obstruction, and paid attention to how this movement changed on days the creek flow was especially high. I was mesmerized by how the sediment around a rock was suspended, moved downstream and redeposited, and how this process changed depending on the size of the obstruction and the strength of the flow.

I was awestruck by an accumulation of leaves, acorns, and twigs on the creek-bed that formed a patch in a particular section of the creek. Every day I came back to observe this particular area, and noticed something new. One day it would be the fact that the debris patch had increased in size. On another, it would be the formation of sediment ripples. I noticed that the directionality of the sediment ripples mimicked the rippling surface of the water. The movement of the water was being mirrored on the creek-bed, bringing together the constantly changing quality of water into the coalescing form of the sediment ripple.

Through my observations of water, my inner state seemed to have taken on the ever-changing and flexible aspects of water. This shift in being with the creek, along with continued study of texts relating to Goethean Science, have been invaluable aspects of the time I have spent at The Nature Institute. As a science teacher working on teaching through phenomenology, it is important for me to have the time and space to practice observation and to deconstruct my own thinking – to be able to pinpoint when I am directly working with the phenomena, and when I am working with already-formed abstractions of the phenomena. It has also been important for me to further my understanding of the philosophical underpinnings of phenomenology in order to improve the way I teach and communicate about my work.

Events

- Craig and Henrike returned to **Florianopolis, Brazil** in November to complete the second two-week module of a four-week course on “Seeing Nature Whole: Foundations of Goethean Science.” They plan to start a new four-week course there in April 2021.



Observing shadow movement during Brazil course.

- In January, Craig traveled to **Melbourne, Australia**, to give a series of keynote talks on “From Encounter to Insights: Pathways of Experience in Education” at a week-long professional development conference for Waldorf high school teachers. He also taught a course for biology teachers and one on “Delicate Empiricism: Practicing Goethean Inquiry.” After the conference he led a public workshop in Melbourne on “Finding Our Humanity: Freedom and Our Responsibility for the Earth.”
- Henrike and Craig taught six sessions in January and February for students in the teacher training program of the local **Alkion Center**. Participants engaged in projective geometry and explored animal and human form and how it can reveal our own deeper nature and that of our fellow creatures.
- In March, Craig gave a half-day workshop in Spring Valley, New York, on “Seeing Nature Whole” at the **Pfeifer Center’s** one-year training course in biodynamic agriculture.
- Our Winter Intensive in 2020 ran for five days in February, during which we guided participants in practical exercises, observations, and discovery to help them experience nature as dynamic, interconnected, and whole. See photos and comments from the work on pages 8–9.

As of this writing, our scheduled summer courses are unconfirmed as we await coronavirus trends. As the next weeks progress, we will follow projections for this uncharted phenomenon and query participants as we try to arrive at a decision.

- In July, more than 20 participants are scheduled to arrive at The Nature Institute to begin their **Foundation Year of Goethean Science**, *Encountering Nature and the Nature of Things*. In this low-residency program — now in its third year — those enrolled meet at our campus for an intensive two-week experience in “living thinking” and phenomenological practice. This introduction is then followed by eleven months of mentored, independent work and online forums with staff of the Institute. Finally, an on-site, two-week intensive next summer will complete their course. Applicants to this year’s program come from Canada, Australia, The United Kingdom, Brazil, India, and South Africa, as well as eight different states. Many are teachers themselves, but this third running of our program has also attracted a filmmaker, artist, organizational development consultant, biologist, art studio facilitator, conservationist, and several biodynamic farmers.

We also have a cohort of students who came to the Institute last summer for the 2019-2020 Foundation program and hope to complete their training at the end of June.

- The staff of The Nature Institute will be collaborating with **two new, experience-based and contemplative education initiatives**, beginning this September. Locally, at the M. C. Richards Program being launched by Free Columbia (freecolumbia.org), Craig will lead courses in experiential learning in biology and phenomenology. Henrike will teach projective geometry as an exercise in cognitive clarity, and also a course on visual experience, color, light, and darkness. And Gopi will address “Model-free Physics and the Forces of Technology” — all this along with contributions from other faculty. Then, at the Thoreau College Semester Program (thoreaucollege.org) in Wisconsin, Craig and Henrike will each lead a week-long intensive.

Now Freely Available !

Henrike’s well-received workbook on projective geometry, *To the Infinite and Back Again*, Part 1, is now freely downloadable from our website: http://natureinstitute.org/txt/hh/bk/pg_pt1.pdf. We hope that, along with many others who have written to us of their appreciation, you will find your work in this book to be a welcome relief from the stresses of our current social conditions.

Publications and Website

In May 2019, Craig and Henrike guided a colloquium of the Research Institute for Waldorf Education on the topic, “**When Nature Becomes a Presence.**” As background reading for the colloquium they chose two articles, which, along with an introduction by Craig, were published in the Fall/Winter 2019 volume of the Institute’s *Research Bulletin*. These articles are now available online at waldorflibrary.org (search under the author name). We highly recommend these stimulating articles:

- “Grounding Through Sense Experience: Preface to Articles by Rudolf Steiner and Albert Borgmann,” by Craig Holdrege
- “A Path to the Reality of the Sense World,” by Rudolf Steiner
- “The Nature of Reality and the Reality of Nature,” by Albert Borgmann

Craig’s article “Encounter-Based Science: From Learning About to Learning Through” will appear in the spring/summer 2020 issue of *Renewal magazine*.

Continuing his research and development of a book-length project, *Evolution At It Was Meant To Be – and the Living Narratives That Tell Its Story*, Stephen Talbott has placed a steadily growing number of chapters onto the Nature Institute website. (See the Notes and Reviews section of this issue for the brief introductory sections of two of the more recently posted chapters.) The book reframes our understanding of organisms (with special emphasis on the molecular level) in terms usually forbidden to biologists — terms such as “agency,” “purposiveness,” “intention,” and “meaning.” One aim of the book is to clarify the uses and misuses of such terms, and to show the dramatic implications for evolutionary theory once we are willing to acknowledge, for example, the agency of organisms. All chapters are freely available on our website: natureinstitute.org/txt/st/bk/. Steve welcomes peer review and comments from readers.

In the fall 2020, Lindisfarne Books will publish Craig Holdrege’s *Seeing the Animal Whole: And Why It Matters*. The book is the culmination of Craig’s popular whole-organism studies that reveal how intimately and distinctly each animal intersects with the earthly context that supports its life.

After much discussion internally and with consultants, we’ve embarked on the process of **remodeling our website** to bring it up to current design standards. The project will be a lengthy one, since natureinstitute.org holds more than 20 years’ research and teaching content in 700-plus pages! The main results of the design work will not be publicly visible until the completion of the project. Stay tuned ...

2020 Winter Intensive

In February, we welcomed a new and diverse group of participants to our annual Winter Intensive to explore the theme of *The Living Earth*. Together we engaged in practical exercises and careful indoor and outdoor observations of plants, water, warmth, air, and earth. While examining the myriad, detailed qualities of each phenomenon, we also worked to grasp its dynamic wholeness. Reflecting on the practice afterwards, participants shared their thoughts:



Our group experimented, individually and collectively, with the dynamic movement of fluids and the character of water drops.

“I loved the experiments! I loved moving through exercises of direct observation. The concept of “phenomena illuminating phenomena” rang true. The days were broken up really well with breaks and opportunities to clear one’s head. The facilities are stunning! The space feels loved and cared for and honored which is so conducive to the work.”





"I have naturally been drawn to observation. However, in my schooling memorization was preferred. This course has ... given me some context, a basis to acknowledge that my natural tendencies were not wrong. Wanting to know via observation is relevant."



"I very much enjoyed the close observations of the plants and flowers, really exemplifying to us what "careful attention" is. In the end, it is clear to see how the elements, plants, philosophy, and nature all weave together to create a much larger, more whole image."

Outdoors we observed skunk cabbage, the growth form of trees in forests, and bored holes of pileated woodpeckers. We also carried out an experiment in which we heated twigs from a tree in an iron tube without letting in any fresh air; here (right) we are "capturing" water vapor and other vapors. After the heating, the wood in the tube had become carbon while retaining all details of its form.



From Our Mailbox

From Australia, one of our readers writes:

... I wish to express my deep gratitude for your website and all the free materials that you have allowed people to access. I have been going through them as well as your book, *Thinking Like A Plant*, and find them to be some of the most practical, relatable writings on the subject.... An amazing body of work and one that is of increasing importance.



Last fall, Jonatha Giddens, Chief Scientist with the National Geographic Society Deep-Sea Research Project, asked for Craig's advice on bringing a Goethean scientific approach to her colleagues for an upcoming Galapagos expedition. Craig made several suggestions for practical exercises to generate qualitative, rather than the usual quantitative, observations. In December, she wrote back:

The expedition went really well! The science team was very open and excited to participate in the observation, drawing, and writing activities I had prepared for us. I especially loved working with haikus. I'm looking forward to sharing this art-integrated approach more within the Nat Geo community of Explorers."

To read Jonatha's in-depth article about orienting her expedition colleagues to new observation techniques, go to the online magazine *Verde Galapagos* (fidal-amlat.org/verde-galapagos) and click on the December 2019 issue.

Board and Staff Changes

This past fall **John Barnes** stepped back from The Nature Institute's Board of Directors. John was a founding board member and served selflessly for 21 years! In the year before the Institute was founded, John was instrumental working with us to articulate the basic ideals and goals of the Institute. We value the quiet wisdom he brought to the work and his deep commitment to Goethean phenomenology.

John was editor of the valuable book, *Nature's Open Secret*, containing Rudolf Steiner's introductions to Goethe's scientific writings, along with a substantial essay by John himself. He was also founder and editor of Adonis Press, which brought European texts on phenomenological science to English language readers.

In 2019, the institute's outreach and development coordinator, **Colleen Cordes**, retired after seven years of accomplished service. Deeply connected to the environmental and activist communities, she nicely complemented the central research and educational focus of the Institute. Along with her always positive and helpful attitude, she brought a sharp editorial eye to the preparation of *In Context*, which we will sorely miss. It was a pleasure working with Colleen and we are very grateful to have benefited from her effort and ability.

Elaine Khosrova joined our staff in October 2019. In her role as Outreach and Relations Coordinator, Elaine will help write grants and reports and also serve as a writer and editor for publications, manage our media platforms, and create materials to promote our events and courses.

As of this spring, another new colleague on staff is scientist **Gopi Krishna Vijaya**. With a PhD in physics (solar energy), Gopi's current work focuses on the assumptions behind many theories of modern physics, re-evaluating them in the context of phenomenology. He also researches the nature and implications of technology, including digital technologies. As part of his work, Gopi will continue to give talks and workshops at the Institute and elsewhere, as he has been doing for the past few years.

A New Challenge Grant!

A Nature Institute supporter has generously offered to donate up to \$5,000 as a matching gift. If we match the grant with your help, we will use the funds to support our education programs, allowing us to give scholarships to our courses, to charge reduced fees for programs, and to provide fellowships for young researchers.

So every dollar we receive by June 30 will be matched up to \$5,000. You can make a gift by check or credit card using the enclosed envelope, or by credit card through our website (<http://natureinstitute.org/friend>). *Thank you!*