**Holdrege Paper**

Rhys Dovey

My experience of Goethean observation has had more to do with the general philosophical principles behind his scientific approach; specifically, the heart-centred mode of cognition advocated so strongly by Buhner. Of course this is reflected in how I go about interacting with my plant, the local Starflower. But the much more important thing I’m learning from this unit is the basic nature of heart-thinking.

*Boundaries*

School was always tough for me. One of the biggest problems for me was, as for many people, the fractured and mathematical formula for all areas of study. I was always perplexed by the fact that a teacher of one field being ignorant, apathetic, and sometimes even blatantly contemptuous of others. English teachers, for some reason, never seemed to do well at math problems.

 But the biggest thing about boundaries in the education system for me came when I attempted to tie mathematics in with science. Big mistake. When I was in elementary school, or perhaps my first year of middle school, I remember learning about the nature of lines: big, long…lines of infinite length, occupying only one dimension of the physical plane. You couldn’t see them, but they were there; we were just too three-dimensional to perceive them. I theorized about this concept for a while. “Lines are everywhere, but you can’t see them?” According to the teacher, yes. “But how do you know they’re there if you can’t measure them?” Well…because they work so well *in theory.* They’re so *convenient.* They make everything measurable, rational, controllable. I simply assumed that the appeal came out of necessity: all matter is made from the complex intersection of these things called “lines,” and these “lines” somehow became thicker at certain points, thus creating tables, TVs, food, me, and this paper.

 Turns out that’s total hogwash. First of all, it turns out everything is made of waves, but more to the point, lines don’t exist. They’re a completely theoretical concept, just like genes and traits. But they’re made out to be constituent parts of a predictable functioning “underlying principle,” rather than the mechanomorphic reductionist abstractions they truly are. Boy, was I duped.

*Delicate Empiricism*

Science as a conversation. It’s definitely an intriguing concept, especially on first read. But to me, it sounds exactly like what real scientific observation should be, axiologically speaking. But there’s definitely a lot of ego in Western culture, especially in the modern age. In a very real sense, science has become a contemporary god. Science is more than a simple act of observing and recording—it’s an entire lifestyle, a mode of thinking all its own. A large segment of a population, adhering to a certain lifestyle of devotion to a higher power, capable of bringing great blessings to those who believe, while mocking, degrading, and even slandering those who don’t. So far as I see, science is a religion all its own.

 Which is why Goethe’s approach is so refreshingly different. He advocates the engagement of the observer *with* the observed, as opposed to a holier-than-thou reductionist, biased as he is by his search to prove his preconceived hypothesis, removing a piece of Nature from its whole and picking apart at it relentlessly until all its physical properties are known. Goethe’s approach is, by comparison, gentle, graceful, and most of all, mindful of the indisputable yet largely unrecognized truth that everything is alive, and everything is interacting with everything else. Modern science’s true character is made much clearer in this light; it is a cold, detached, human-centred observer.

 That’s how Buhner’s heart-thinking comes into play. The heart is an organ of perception, capable of interacting in many complex ways with the body and the many magnetic fields that everything produces. It’s basically the “outside brain” inside our body—the rest of the world “thinks itself in us” through our hearts, to borrow Bringhurst’s line. It seems to me as though most scientists turn their hearts off to some extent. Perhaps in their obsessive compulsion to concretely rationalize everything to their brains’ liking, they become unknowingly preoccupied with an exclusively brain-centred mode of cognition, ignoring the emotional thoughts of the heart. Attachment with the observed is thereby broken; as the brain is the organ of self-thought as opposed to heart-centred world-thought, the mode of cognition becomes increasingly human-centred. The scientist becomes preoccupied with **HIS** theory, rather than curious to have the truth unveiled to them by cooperative dialogue with the observed.

 Thus I view Goethe’s Delicate Empiricism with great praise. This approach to scientific observation would make a world of difference if known and truly comprehended by the plurality of the scientific community. It might not be so keen to recklessly play around with nuclear fusion/fission (whatever) or black holes, as we’ve been doing a lot of this over the past century and it’s probably only a matter of time before the “scientists” get too cocky and blow up the sun. Or something.

 *Engaging the Conversation*

The plant that revealed itself to me was the Starflower, located at the far side of the middle section of the garden, in the neighbourhood of a small, lone tree. Starflower’s was a very pleasant little community, I noticed that right away. Not much variety though; the only significant colour variations were the varying shades of green on the different plants. This made Starflower’s deep blue and violet flowers all the more attention-grabbing. To be clear, they did not “jump out” at me; it was just that familiar heart-sense of just *knowing,* with a feeling of utter calmness and no thoughts in my conscious mind whatsoever*.* It was all *feeling.* I saw the plant, felt my attention be naturally guided toward it without forcing myself to in any way, and said “hello.” It was a quiet little flower, and still hasn’t said much to me, but it’s very soft in its features. A dandelion was growing out from amongst its many leaves at the base, which themselves were very soft and strong at the same time. Almost right away I noticed, despite it still being only early autumn, that the flowers were drooping more significantly than others nearby, thus leading me to name it the “wilting fuzzplant,” covered as it was from leaf to stem in tiny, hair-like bristles, and I not knowing the proper name of the plant at the time. Starflower definitely packs a much nicer punch though, I must say.

*Exact Sensorial Imagination*

According to Goethe and Holdrege, this means utilizing one’s imagination to paint a more coherent image of a phenomenon in the process of revealing itself. As the phrasing indicates, the intent is to recreate an image or experience as completely and vividly in one’s head as possible. I do this occasionally with my plant when I’m at home. There is usually no particular precursor to this; I close my eyes at random (or don’t) and think about the plant. This happens most often right after we re-enter the workroom after going out for our weekly plant check. When we sit back down, I try to electromagnetically connect with the plant—if the phenomenon could be referred to in such mechanical terms—and “talk” to it from a distance. I try to see it and smell it as best as I can in my mind.

This process has become much easier and the mental pictures much clearer as time has gone on. This likely means that my mind is now more capable of processing the perception of my heart in my consciousness. Buhner’s technique of biognosis has come to make much more sense to me in the past few weeks—heart-centred perception is literally developing a voice of its own within me.

*Starflower—a portrayal*

A tiny forest on the side of a small dirt track is all it is. A miniature garden within itself that alternates leaves and pedals and stars and flowers—

It *is* polyphony.

This is what this plant feels to me.

I look upon it fruitfully

It tells me to come look in silence—

It tells me in silence.

A cigarette for once is not necessary at the moment

As I kneel in the mud and read her—

All pretty flowers are of course female—

The softest plant I have ever had the privilege of meeting

But by no means is she weak.

Not this week,

Or next.

Deep starbursts, such deep starbursts. I’ve never seen anything so visually explosive with such tranquil colours and patterns.

I could stare mesmerized at the eyes of the Star for hours here.

Four hours here, and still she wilts.

Yet not supported by a stilt; she is not a human creation.

What thoughts I have of you tonight Walt Disney, for I remember the flowers you used to beautify your beast.

The princess that you have created

Destroys the symbol of the Flower.

Newton killed the meaning of the Star. You too.

 So I’m a little cynical at times. That much is rather obvious, at least to me.

But the point is that when I see this flower, I am not thinking what was written here earlier.

Because I see only stars.

Blue and violet-white and black

And stacked

Along the stem so precisely

Without order of any kind

And when I look, I have no wisdom—

The heart itself will pay no mind.

**Flower Power**

Hippies had it right

“It’s not a flower, it just *is,* man”

Was he stoned? Smacked? Smothered?

No.

The Hippie knows the Earth Mother.

Now science says he’s right

A blow to empiricism’s might

Communicate with hearts? Bull.

No electromagnetic pull

Could possibly attract

Love—

It’s just chemical reactions

Not something from above

But now we find these

‘Voltage-gated ion channels’

Particles moving spontaneously

In synchronicity

Unpredictable hearts

—and I can talk to plants.

What are *you* learning at MIT?

*The Whole as a part*

 Starflower is much more stubborn than many of the other plants nearby. Several of the other students’ plants started to become or were already dormant by the middle of November. But my plant has only seen the loss of a few flower buds here and there. The dandelion growing in the midst of the plant has started to die as well. Beyond these, Starflower continues to thrive.

 I noticed that the buds had started to wilt quite early on. They were originally pointing for the most part straight outwards, but by October, they were all noticeably lower. Since I originally did not know the proper name of it, this, along with the many thin fibres all along the stems and leaves, lead me to call it the “Wilting Fuzzplant.”

 Starflower makes me think of light; fire, if I’m going directly for one of the basic elements, but light specifically. It is by far the brightest object in its immediate area, and the deep blue, five-pointed buds vividly pop out from the surrounding green. It adds beauty to the garden, in a sense illuminating the area around it. Each bud also has a noticeable amount of bright yellow and white on the inside, making for an utterly illuminating essence.

 Now in the dying weeks of November, after having not seen her over the course of Thanksgiving break, it seemed at first that Starflower had completely disappeared. I was initially very confused by this—I thought maybe she had been dug up or eaten, though both these conclusions seemed very unlikely. In reality, they were my mind’s attempt to rationally deny what my heart knew to be true—Starflower had died. Gone dormant, technically, but the sight of her at the time evoked no other word than “dead.” After checking on her cousins (the neighbouring Starflowers) and finding that they were rapidly composting, I knew that a more careful surveying of the area would reveal the bad news to me unequivocally.

 She looked worse than the others. The dandelion had collapsed in a heap, and the plant itself was completely swallowed whole by the earth. There was literally nothing left, save a few leaves, and a single, brown, crumpled husk of what seemed to have been a glorious blue star at one not-so-distant point in the past. How quickly things change.

 There is literally nothing I can do with her now. That was the one sensation that overwhelmed me at the initial moment of observation of her unfortunate, but obviously routine, seasonal death. She would be completely lifeless until spring, at least. I need to emphasize the importance of my use of the words “death” and “lifeless.” A tree loses its leaves for the frost season, but retains its shape, its integrity. Most plants are axiomatically similar in this regard—they simply lose their leaves, but maintain their basic structure. Starflower completely *died.* She wilted, faded, blackened, browned, and was swallowed by Mother Earth. I hope she will return in spring, but the totality and suddenness of her collapse is enough to bring serious doubt to this belief. Despite this, the knowledge that the rhythm of Nature is always reliable and capable of miracles allows me to continue to believe strongly.

*The unity of the organism*

 Though my observations were relatively few and far between, I almost immediately became aware of the fact that Starflower is a very delicate little plant. The brightness within her added beauty to the area, but as with all flowers, its delicacy and beauty was not an effective survival tool for the harshness of late fall in the Northwest.

 *Delicacy* and *light* are two words I could use to describe Starflower. Wilted from our very first meeting, and soft to the touch as it was, I couldn’t help but notice that she was a very fragile thing. I was surprised to find her still going strong in mid November, despite the cold. But it finally built up enough to overcome her stubbornness. Gentle, illuminating, and above all stubborn. These are what Starflower is.

*Doing Goethean science*

 The Delicate Empiricism of Goethe is axiomatically about developing a genuine connection with the phenomena of Nature. Only through this approach, I believe, are we truly capable of understanding them, within their own natural context and supported by its ecosystem.

 It is easy to see how the scientific traditionalists could mock this approach. Science has become extremely arrogant in its dogma, and like any religion, its most orthodox adherents will inevitably mock and condemn the nonbelievers. But Goethe was very passionate about his belief in this approach, going so far as to say that one must become “utterly identical” with the phenomena that they observe.

 I was unable to directly communicate in any unequivocal way with my plant. But Goethe’s philosophy opened my eyes to a new way of observing. Becoming “utterly identical” is the most important teaching of this philosophy.