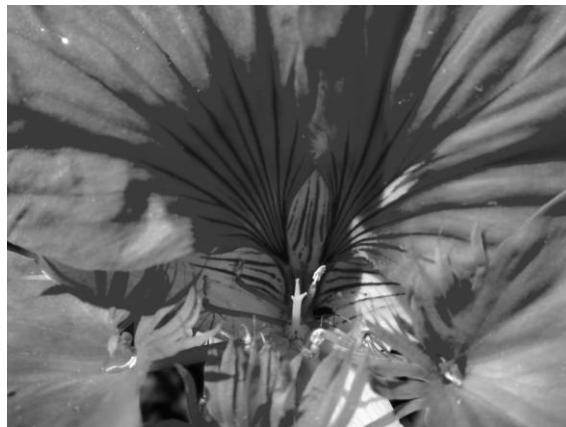


**IF GOETHE HAD A CAMERA?****GRANT RILEY**

*"He stood breathing,  
and the more he breathed the land in,  
the more he was filled up with all the details of the land.  
He was not empty.  
There was more than enough here to fill him.  
There would always be more than enough."  
(Bradbury 1953)*

A modern compact digital camera can provide instant gratification for amateur and professional photographer alike. A small fraction of a second to snap a shot. An equally miniscule amount of time to display the picture. Within a short moment a new image is produced. I personally like to photograph nature and particularly enjoy macro photography of wild plants. This style of photography I have dubbed 'a bee's eye view'; examining closely the beautiful detail of plants, the intricate colourful patterns of their flowers and delicate botanical parts.

*Photograph 1: Tropaeolum majus*

Whilst studying Goethean Science and learning of Johann Wolfgang von Goethe's (1749-1832) intuitive approach to studying plants, I came to consider what he might have thought of modern photography and the digital camera itself. I asked myself whether Goethe would consider something so instantaneous to be contradictory to his contemplative methodology. Would he be able to see any relationship between modern digital photography and the raising of our natural awareness in this present time of ecological disconnection? Would Goethe be in agreement that photography enables us greater depths of plant understanding?

Goethe's scientific method, detailed in 'The Metamorphosis of Plants' (Goethe 1790), when utilised, allows the observer to be able to 'see' nature as an interconnected web of relationships and not as inanimate, separated set of independent parts. The essence of Goethe's teachings (in regards to plants), is to be intuitively aware of a wild plant specimen, to spend time in its presence and to slowly allow the plant to reveal itself in detail through a deeper understanding and connection. This can be derived through intuition, artistic imagination and by working with a subjectively inspired approach, as opposed to the more classical objective, mechanistic epistemology. Goethe's approach to scientific enquiry produces imaginative and detailed paintings or drawings of the specimen studied. This process comprises of seven stages: Exact sense perception; exact sensorial imagination; seeing in beholding; becoming one with who you are; catching the idea; growing the idea into matter and new product (Colquhoun & Ewald 2003).

I considered whether this process of snapshot photography with my digital camera was entirely in contrast to the teachings of Goethe. I am aware that photography cannot be strictly adhered to Goethean scientific method due to Goethe's specific instruction of the use of drawing/painting. However, I value my photography as having intrinsic artistic value as well as a scientific worth. During these thought processes the digital camera itself became to symbolise the haste and speed of modernity to me, particularly in the context of my relationship with nature.

Almost all modern activity appears to me to be fast; Fast food, fast car... fast snap shot photo? However, there is a non-physical functioning related to my photographic approach that I myself do not so clearly understand. Perhaps to comprehend this quality better I shall simply quote the commonly used phrase:

"Beauty is in the eye of the beholder".

This discourse intends to look at one aspect of Goethe's work, his understanding of plants through the process of intuitive re-cognition with nature and to explore the connection with the modern art of digital photography. Firstly, I would like to discuss my own understanding and interpretation of the Goethean method.

We are part of nature; Nature is part of us

Goethe's methodology of intuitively being and studying plants involves a meditative approach to observing the plant as a whole. It encourages a connection with our lesser used instincts, a flexing of long redundant senses, a reconnection with our primitive selves --- senses possibly more akin with the ancient forager or hunter rather than that of the modern scientist.

When I study flora it is often with a guide book in one hand, my camera in the other. If I come across an unfamiliar species to identify, a photograph is taken. Once back home, I then upload the image onto my laptop and an internet search begins for information on this newly identified or unfamiliar species. This has been one of the most effective ways I have found to extend my wild plant knowledge. Of course, In Goethe's lifetime he would have had no access to any of these afore mentioned tools.

There were botanical drawings, literature and plant knowledge kept amongst certain members of society, but there was probably scant remainder of the common oral tradition of plant knowledge. European indigenous wisdom of plant knowledge maintained through an oral tradition would have been lost, eradicated or kept secret in Europe at that time.

During the fifteenth through to the seventeenth centuries, the systematic eradication of witches and the practice of witchcraft led to the loss of traditional herbal medicinal knowledge and its practice for common people (Wertheim 1995).

The connection with nature's pharmacy was severely diminished for the European people, even the fear of possessing such knowledge had become dangerously taboo. The execution of witches had finally come to an end in Goethe's lifetime, but the presence of Christian dominance in society would have meant any animism of flora or fauna continuing to be strictly forbidden. However, Goethe's revered status as a writer, artist and politician would have won him exemption from such purgatory and his seemingly Paganistic ideas and works were thus able to be published.

"Botany and medicine came down the ages hand in hand until the seventeenth century; then both arts became scientific, their ways parted and no new herbs were compiled. The botanical books ignored the medicinal properties of plants and the medical books contained no plant lore." (Leyel 1931)

### **Extant Indigenous Knowledge**

"If it's the greatest, the highest you seek, the plant can direct you.

Strive to become through your will what, without will, it is."

(Goethe 1790)

The Goethean methodology also appears to be not so dissimilar to the indigenous methods utilised by many herbal medicine practitioners globally.

Medicine men/women, spirit guides and shaman share similar intuitive approaches to understanding their plants and their potential medicinal values.

Taking time out, the use of intuition and imagination, the slowing of thought and putting oneself into the mindset of a plant could easily be condemned as absurd from a modern western perspective, listening to plants deemed ridiculous. One only has to look at the mockery Prince Charles received from the British media

when he declared that he talked to his plants; maybe he should have listened to his plants, but that is a matter of opinion.

In indigenous cultures, where there may be no access to doctors, hospitals or 24 hour pharmacies, self reliance and herbal plant knowledge are essential to survival. In these conditions, the approach to plant knowledge is taken a lot more seriously than in a modern, supposedly 'civilised' society.

In Stephen Buhner's book 'Sacred Plant Knowledge' (Buhner 1996); he describes the extent to which some indigenous North Americans go to in their understanding of plant medicine. Buhner writes, "It is often a good idea for people desiring to make relationship with plants to carry a plant they feel drawn to in a medicine pouch around their neck, hanging it down to heart level, and that they do this for as long as a year. In this manner your body becomes more accustomed to the plant's presence and you become accustomed to thinking often of the plant."

He goes on to detail further methods, "at night it is good to sleep with the root of a plant you are working with under your pillow. This often results in easier access to dream medicine about the particular plant for your use and helps deepen personal relationship with it."

It is clear that many indigenous cultures have an extensive holistic relationship with their plants; understanding their medicinal values, their nutritional properties, their habitats, their presence, as well as having spiritual connections with each individual species.

These other worldly plant properties are clear, obvious and animated in the hearts, souls and minds of indigenous peoples; this concept still remains incomprehensible to many western minds today.

Another example of human and plant relationships can be observed amongst indigenous American herbal practitioners (although undoubtedly similar methodologies are employed globally), by those known as Curandero. The name Curandero is literally, as translated from Spanish, as the 'healer', or more probably recognised in the west as a Shaman or medicine man.

The Curandero's unique relationship and extensive plant knowledge stems from journeying with plants on the spiritual plane, through consumption of plant concoctions, often hallucinatory, powerful and emetic, the Curandero 'travels' with their 'patients' and seeks healing divination of the appropriate herbal remedy via the practitioners extensive knowledge and understanding of plants and their properties.

"The internal dialogue is what grounds people in the daily world. The world is such and such or so and so, only because we talk to ourselves about its being such and such and so and so. The passageway into the world of shamans opens up after the warrior has learned to shut off his internal dialogue" (Castaneda 2001)

In essence, I personally believe Goethe's work with plants was a rebellious act against the contemporaneous scientific epistemology of his time. By diverging from a mechanistic, reductionist view of studying what was essentially botany and ecology, Goethe maintained a link between what would have been European Pagan methodologies of plant understanding with those methods we find utilised within indigenous communities currently and historically across the globe. Goethean science represents to me a bridging link between extant European indigenous knowledge and our current globalised renaissance of attempting to re-connect with nature.

### **A Cup of Liberty Tea?**

My own personal journey utilising Goethean methodology is a vignette that I feel is worthy of mention.

I come from a professional background of woodland and countryside management, I have also worked as a freelance ecologist for some years. My relationship with plants has been on many levels, for example; from utilising scientific accuracy in the identification of plants for professional surveys, report writing and habitat management planning. I have also been interested in the medicinal and nutritional properties of wild flora and have embraced this journey as an amateur pursuit; this has also contributed in broadening my plant knowledge. And of course, in regards to the title of this essay, I love to photograph and try to capture the true beauty of Mother Nature herself, her flowers being some of her most expressive gifts.

I think I approached wild flora in a truly holistic way, long before I had discovered Goethean science. One part of me utilising a reductionist western scientific epistemological approach as the ecologist, mixed with a methodology more akin to the feral ancient forager combined with my own personal take on an indigenous spiritual perspective. However, I was keen to approach Goethean science with a clear and open mind. In September 2012 I moved into accommodation at Schumacher College to commence study of the MSc in Holistic Science. Outside the front door of my new abode I was aware of a tall, yellow flowering plant that stood out of the semi-wild and diverse gardens that surround the accommodation blocks at the College. The

plant had caught my attention - familiar, yet not. It seemed oversized for what I suspected the plant to be. However, it remained in my mind.

As part of studying Goethean science I was required to utilize his method of intuitive re-cognition and it was obvious to me which plant species I was to study. This plant had already 'spoken' or stood out to me. The plant's vivid colour and abundance had caught my attention; its attraction for so many pollinators in this late summer had also fascinated me. The summer of 2012 in the UK had seen unprecedented amounts of rainfall and I was acutely aware of the drastic consequences for so much wildlife, particularly invertebrates. I looked upon this plant and was curious to see how strikingly copious its pollen was, it was almost as if the plant was compensating for such hardships suffered earlier in the summer months. I proceeded to sit and contemplate this species and draw and study it intently.

I later returned to my identification books and found in Philips' 'Wild Flowers of Britain' that it was the plant I had suspected it to be, *Solidago canadensis*, commonly known as Golden Rod.



Photograph 2: *Solidago Canadensis*

I had moved from the South East of England to Schumacher College in the South West and read in Philips' book, "...abundant in England except for south east." On further investigation I discovered that the plant could be used in a tea and is used to boost the immune system, particularly at the onset of the winter months. *Solidago canadensis* is a seasonally late flowering species, blooming fully in the autumn, and as I discovered this plant's properties in late September, the timing was perfect, and I promptly prepared a brew.

An interesting tale I also discovered about Golden Rod was its popularisation as a tea after the Boston tea Party in 1765. Golden Rod mixed with other herbs, including raspberry leaves, was then used as a substitute for black Chinese tea by the American colonists to evade the British tea tax. It became known as 'Liberty Tea' ([www.mountainroseherbs.com](http://www.mountainroseherbs.com).2012).

There is no conclusion here that Goethean scientific methodology led me to a plant that helped boost my immunity at the onset of a seasonal change, but an interesting study none the less.

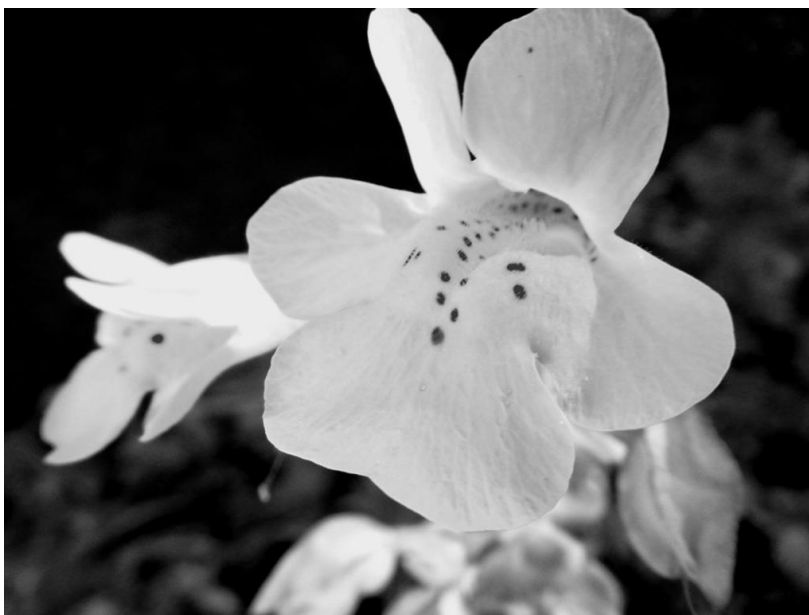
### **Recognising and Re-connecting to Nature**

By photographing the wild flower, nature has attracted me to her presence; the flower being one of the most delicate and beautiful of her possessions. One may be presumptive that in her design the sole purpose of colours, delicate arrangements and wonderful diversity of the flower are there solely to attract the pollinator. Show a harebell to a small child, or a foxglove to the most hardened of urbanites and I would be surprised if you did not receive the smallest of smiles.

To spend just a moment looking into the wonderment of a wild flower embraces one with a feeling of warmth and tranquillity that nature gives to us. We can attend as many self-help groups, counselling sessions, even yoga classes and meditations, all of which are good practice in their own right, but for me, biognostically (based on empathy and not reason), nature provides us with our own Prozac, there, right inside the view of that flower, for free.

Recent work by the Norwegian scientist and photographer Bjorn Rorslett has highlighted the complexity and purpose of flower patterning ([www.naturfotograf.com](http://www.naturfotograf.com) 2012). Rorslett utilises ultra violet photography to highlight nature's intricate artwork within the parts of a flower and how it assists in directing pollinators to their bounty. The patterns located in parts of the flower operate as landing lights, similar to those on an airport runway, to guide the pollinator to the source of nectar.

'The primary function of many floral traits appears to be to ensure that flowers are highly visible, recognizable and attractive to animal pollinators. One floral trait that has been shown to increase pollinator visitation to a flower is that of contrasting colour patterns. These patterns can act as guides to pollinators to aid foraging by highlighting the location of nutritional rewards, or can increase visibility by using strongly contrasting colours' (Mitch 2003).



Photograph 3: Mimulus guttatus

### The Science of Art, the Art of Science

Through the arts man has eternally attempted to express that feeling of reconnection with the natural environment. A lengthy list could be compiled of all the poets, musicians, composers and artists that have been inspired by nature. So many have tried in a multitude of media to describe that ineffable feeling... that incredulous moment when nature enraptures us.

".....Enough of Science and of Art;

Close up those barren leaves;

Come forth, and bring with you a heart

That watches and receives."

(Wordsworth 1798)

In reflection of the original question, 'If Goethe had a camera?' one can only muse. After all, he had lived during the early development of photography (the first permanent monochrome image being produced in 1826 ([www.rps.org](http://www.rps.org). 2012)), however my own research has revealed no information regarding whether Goethe had any knowledge or opinion of this early photography.

Nevertheless his scientific method has survived and is currently enjoying a renaissance and I suggest, as a fellow biophiliac, that Goethe would have appreciated and supported deeper understanding of the plant through photographic practice as I have outlined in this dialogue.

Photography helps people to see. My own personal slant on photography tries to capture the moment I am entranced by nature; I can bring the image home with me and then share it with others.

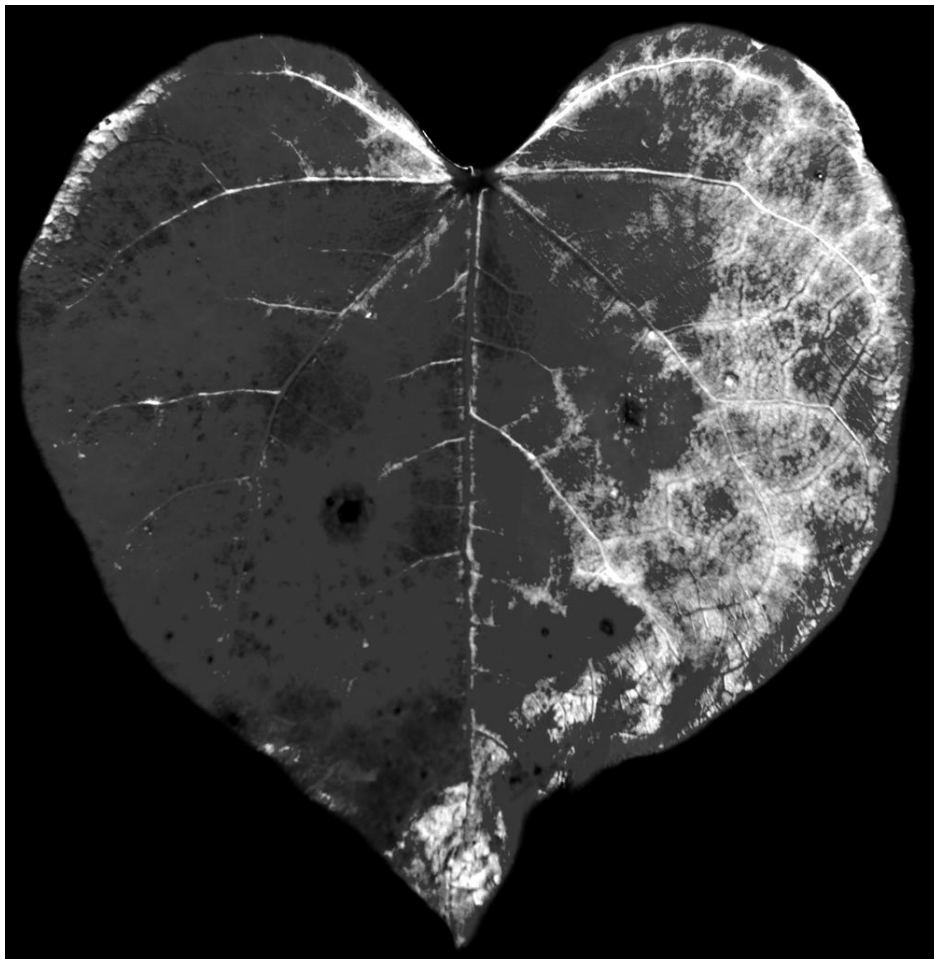
In working with nature one learns to slow, to be contemplative and reduce one's haste; to find a pace more appropriate for the natural world rather than the speed of our own anthropogenic domain. Consider the time framework of a tree's lifespan, think of the lapse of the seasons, even contemplate the unfathomable time of the geological processes and one can slow to something more suited to nature's pace.

Plant inhales carbon dioxide, exhales oxygen; Man inhales oxygen, exhales carbon dioxide; plant inhales carbon dioxide...and so forth. We live and breathe together.

In woodland, when alone, I like to enter as silently as possible and when comfortable find a place to sit. Most of the birds will have been calling their alarms at my first entrance to the wood; squirrels scurry up trees, the wood mouse will hide back into the undergrowth, all eyes are upon me. The whole forest will be alerted to my presence. Many creatures will remain perfectly still; any movement could be the giveaway between life and death. I also remain perfectly still, unthreatening, and breathe in the forest. Eventually my presence may become recognised as harmless. I continue to sit and be still...and after some time the forest starts to unwind from its coil of alarm. None of this happens swiftly.

Eventually the woodland creatures begin to reveal themselves, the boldest first; squirrel reappears back down the tree and continues in its forage, after some time wood mouse cautiously continues about its business, the birds once again resume their daily frolic. The woodland eventually re-embarks in its interactions as if I never existed.

Simply sitting and finding my place in the woodland is similar, for me, to the principles of Goethean science. The exercise of patience, acute observation and deep intuition lead to a better understanding of nature. You then might find yourself in a position of greater awareness and knowing, and if you are lucky enough...nature may reveal some of her precious secrets for you.



Photograph 4: Cercis Canadensis

***Love is the whole thing. We are only pieces.***

***~Rumi***

**References**

- Bradbury. R. 1953. Fahrenheit 451. Ballantine Books.
- Buhner. S.H. 1996. *Sacred Plant Medicine*. Raven Press.
- Castaneda. C. 2001. *The Wheel of Time: The Shamans of Mexico Their Thoughts About Life Death & the Universe*. Washington Square Press.
- Colquhoun. M. & Ewald. A. 2003. *New Eyes for Plants*. Skylark Books.
- Goethe J. W. 1790. *Versuch die Metamorphose der Pflanzen zu erklären (The Metamorphosis of Plants)* Gotha: Carl Wilhelm Ettinger.
- Leyel H. Editor's Introduction, In Grieve. M. 1931 (reprinted 1984). *A Modern Herbal*. Harmondsworth, UK, pp xiii- xv. Penguin Books.
- Mitch. L. 2005. What the Bee Sees. *Science*, Vol.307 (5715), p.1539 (1)
- Philips. R. 1977. *Wild Flowers of Britain*. Pan Books Ltd.
- Rumi/ Chittick. W. 1983. *The Sufi Path of Love: The Spiritual Teachings of Rumi*, Albany: Suny Press.
- Wertheim. M. 1995. *Pythagoras's Trousers*. p90. WW.Norten & Company.
- Wordsworth. W. 1798. *The Tables Turned*. Lyrical Ballads. Project Gutenberg.
- 12/12/2012. [www.mountainroseherbs.com/learn/goldenrod.php](http://www.mountainroseherbs.com/learn/goldenrod.php)
- 12/12/2012. [www.naturfotograf.com/uvstart.html](http://www.naturfotograf.com/uvstart.html) (Bjorn Rorslett)
- 12/12/2012 [www.rps.org](http://www.rps.org) 2012.

*All photographic images in this essay are original photographs by Grant Riley.*



**Grant Riley** is a free-lance ecologist currently studying on the Master In Holistic Science at Schumacher College, Devon, UK. He has spent several years working in woodland and countryside management in the south east of England. In 2008 he graduated and received his Bachelors degree in Ecology and Biogeography from Brighton University.