Goethean Science as a Way to Read Landscape

ISIS BROOK

ABSTRACT *This paper demonstrates the method of Goethean observation as a means of surveying and appraising landscape which allows a role for a schooled subjectivity. Similarities between this method and phenomenological studies are made. To explore what Goethe's scientific method is, the first section of this paper discusses the Goethean method as taught by the School of Life Science. I then move on to the situation of attempting to apply the method as a means of understanding the Genius Loci of a specific place, and record what happens when the same place is then revisited. The method, as negotiated by the group applying it, is examined by describing the experience and examining the intersubjective consistencies and discrepancies that arose within the group. In conclusion I suggest the way in which this method could be used to approach landscape in an informed way that is also sensitive to the phenomenon of the place itself.*

KEY WORDS: phenomenology, landscape survey, pathways, sensory awareness, perceptual modes, *genius loci*

Introduction

> Sheltering under pine
> I gaze
> Through windows of wood
> toward a Southern sky
> and behold
> Hills laid low against a grey sky.
> Undulating horizon or
> Hedge of naked birch and canopied pine
> along a road that pretends to be our boundary
> or fringe of needled branch
> above my head
> Embracing my smallest space;
> Where are my borders?
> Where the line dividing
> I and World?
>
> Warren Bauer

Isis Brook, School of Independent Studies, Lancaster University, Bailrigg, Lancaster LA1 4YN, UK. Email: i.brook@lancaster.ac.uk

The above poem was one product of an attempt by a group of people to apply the approach of Goethean observation to a study of landscape. Why Goethe, why a poem? In 1991 I began a study for my doctoral thesis in the philosophy of science. The focus was to be Goethe's methodology and in particular the way it was being adopted and developed today. There is a growing interest in Goethe's science as possibly more than an historical anomaly within several disciplines.[1] There has also been continuing interest in, and development of, Rudolf Steiner's interpretation of Goethe's scientific method within anthroposophy since the late 19th century. My own understanding of the method began with reading Goethe's scientific work, and developed through attending courses run by the School of Life Science.[2]

Very little has been written on the practical application of Goethean observation[3] but this account from the experience of a novice attempting to use it may prove useful to those interested in applying some or all of its techniques as part of a sensitive approach to landscape analysis.

The Method

Any live and developing tradition will be in a constant flux and Goethean science[4] is no exception. However, certain key aspects appear to be constants within that flux. They appear in Goethe's own discussion of science and are reiterated by Goethean scientists working today. These distinctive features include:

- observing with patience and rigour;
- deepening a sense of wonder to the world;
- using sensual and emotional awareness to experience phenomena as fully as possible;
- attending to connections between phenomena;
- acknowledging an ethical dimension to the practice of science.

Goethe points to all of these qualities when he speaks of seeing phenomena with "a certain purity of mind".[5] One should not make the mistake of assuming that Goethe recommended a naïve or pre-critical view.[6] Goethe accepted the essential role of the mind's activity in rendering experience meaningful. What he disagreed with was Kant's contention that what is revealed by the mind is not things as they are in themselves but only as they appear to the human intellect.[7] Although Goethe recognized the many failings of our usual means of knowing the world he believed that a knowledge utterly in tune with the nature of things in the world was possible. It was this knowledge towards which his science strove. The means towards that end is an approach to phenomena that can be said to involve four stages or modes of perception.

To clarify these stages, I first draw on the way this approach to science is taught on courses organized by the School of Life Science. In the teaching the perceptual modes are distinguished more sharply than when used by experienced practitioners. Beginning to separate these different perceptual modes and to experience their qualities is a large part of what is distinctive about the Goethean approach. Once the observer can experience these processes consciously, they can again flow into one another in a less truncated way. The four stages are as follows:

1. exact sense perception;
2. exact sensorial fantasy;
3. seeing in beholding;
4. being one with the object.

Before the first stage of Goethean observation there is a preparatory stage. My understanding of why the stages are not just renumbered to include this preparation is that the first stage of exact sense perception was called the 1st stage by Goethe even though he acknowledges the requirement for preparation. It could be that his interest in alchemy meant that the numbers 1, 2, 3, and 4 held a particular significance in keeping with the modes of perception. In the preparatory stage there is a place for who we usually are—our everyday likes and dislikes, our personal history—and this aspect of our ordinary encounter with things is acknowledged and recorded. Care is taken to note the first impression that a thing creates in ourselves as observers. This effort allows what is often a very apposite observation some status. Recording and sharing first impressions also acknowledges that the observer comes to the thing with a history of other perceptions and memories. Placing the personal emphasis only in the preparatory stage could be seen as a form of bracketing. Although the focus for much phenomenological geography is an analysis of the lifeworld,[8] this method shares with transcendental phenomenology an idea of a purified subjectivity as the instrument of investigation. Thus individual subjectivity is distinguished from a form of universal subjectivity which is used in the stages that follow.

Another aspect of this 'first meeting' with the phenomenon is also used by the observer to choose what to study. It is when one is struck by something—positively, negatively or with curiosity—that the beginning of a penetrating observation can come. This is spoken of as being drawn to or being spoken to by the thing; something about it engages us and we want to know it better. This process is seen as circumventing the possible arbitrariness of just being allocated an object of study.[9] Being able to find the thing that it would be fruitful for one to study is not only a matter of waiting to be 'spoken to': it requires a degree of patience and a child-like receptivity. Participants report that it is often when they have stopped thinking about what they should study—what would be pleasant or convenient, etc.—that they are suddenly struck by something. The experience of being called to by a phenomenon is also used in more mainstream phenomenological research techniques.[10]

1. Exact Sense Perception

The first stage begins when we stand back from the personal encounter that recording and valuing first impressions allows. Now the observer attempts to approach the object from a clearer, more objective standpoint. This stage was called by Goethe *exact sense perception* and is characterized by a detailed observation of all the 'bare facts' of the phenomenon that are available to our ordinary senses. It is an attempt to see what is present with as little personal judgement and evaluation as possible. All our theories and feelings about a thing must be held back in order to 'let the facts speak for themselves'.

The question of there being 'facts', even before considering whether they may be able to speak, is deeply problematic for us, but it was not entirely a naïve

foolhardiness on the part of Goethe. His own history of the Royal Society could be seen as a proto-sociology of science and his writings on scientific method are always around the question of the possibility of theory-free observation. His own studies move from what he termed his 'stiff-necked realism'[11] to the idea that science should move towards what he termed "a delicate empiricism".[12]

An example of trying to let the facts speak for themselves from Goethe's own work is his extraordinarily detailed observations of colour phenomena. Rather than draw hypotheses or work from a theory his investigations involve colour as experienced by himself, as used by artists, as created by dyers, as used symbolically, as seen in animals and plants and so on.[13]

For the student attempting to carry out this stage with their own phenomenon, drawing can be a useful tool, because in drawing our attention is brought to previously unnoticed detail or patterns. For example, if our aim is to 'see' a particular rose, these techniques help to circumvent our usual 'seeing roses' mode of perception. The categorized artefact created by our usual mode of perception must be ignored to let us see the rose as if we had not seen one before. Drawing from memory is also used extensively. One may think that one knows everything about the appearance of a thing only to have that assumed knowledge disappear the moment the object is hidden from view and one is asked to draw it.

Another tool used is to ignore some knowledge, for example the names of things, such that they can be seen and described outside of some of our learned classifications. This restriction on nomenclature is used throughout the shared observation sessions. Attempting to find another word to describe the part you are indicating to someone else often leads to a looking again, an effort to find a similarity with something else. Bracketing out prior knowledge is not forgetting it, but trying to put it aside for a few minutes. An example of this was a participant describing a plant and including in the description of a leaf stalk the caterpillar that was walking along it, as if it were part of the plant (bracketing her obvious awareness that this was not the case). Just attempting to see it that way can lead to insights about the relationship between the caterpillar and the leaf and other boundary relationships. The intention is to free up the habitual categories and possibly see new elements in the relationships between things.

In comparison to a more orthodox scientific investigation the attempts to step outside of prior knowledge, theory-driven observation and hypothesis testing are striking, but some of the procedures carried out may appear orthodox, for example measuring and recording quantities. In this first stage, another possible departure from orthodox methods is that all the senses are used. For example, with plants, the sense of smell will be helpful and touch can be very important. The use of the non-visual senses is common in phenomenological studies as sound, smell, etc. are said to bring a greater engagement with the phenomenon.[14]

It is impossible to continue in exact sense perception forever. To register all the great amount of variety and detail would be, as Goethe said "like trying to drink the sea dry".[15] Just amassing facts about the phenomenon as a static object at the moment at which we are looking will not allow us to really see what the thing is or come to any firm idea of it. Exact sense perception is only the foundation on which the following stages rest and to which they return when necessary to verify conclusions reached by other means.

Figure 1. Leaf sequence as imagination exercise.

2. *Exact Sensorial Fantasy*

The second stage of looking at the phenomenon is what Goethe called "exact sensorial fantasy" (*Exakte sinnliche Phantasie*). An aspect of this activity is to perceive the time-life of the phenomenon, that is to see it as a phenomenon in time. This means no longer seeing the thing in an objective frozen present as prompted by the first stage, but as a thing with a history. That history can be drawn from the phenomenon with the use of an imaginative faculty that cultivates temporal and physical relationships, for example, those between the skeletons of one animal and another.

One way to gain practice with exact sensorial fantasy is to produce, imaginatively, a leaf which fills a developmental gap between those that are evident in a plant (see Figure 1). This exercise helps to shed light on the process of discontinuous metamorphosis in the plant as opposed to recording only its form. The leaf sequence can be experienced as if one is living in the changing forms of the leaf rather than seeing the individual static representations.[16]

Such examples can attune one to seeing movement and thus seeing things in transition. The difference between this type of observation and, for example viewing separate slides of a micro-organism to build up a picture of how it has developed, is that the former seems to be happening in the thing whereas the latter is more consciously reasoned out. The shift between the two modes of seeing is a small one, but the world does look very different when seen in a state of flux.[17]

The difficult part of this way of seeing is to bring to awareness these flowing processes in, for example, the plant without freezing them with the solid nature of the exact sense perception. The aim is not to use the static recognitions of the first stage, but rather, to take those solid objective qualities into the new realm of movement and allow them to flow into one another.

In this phase the imagination can be used as a tool to vary what is seen and attempt to imagine it otherwise. The obvious link to phenomenology here is with the use of free imaginative variation. First suggested by Husserl, this is a means of deriving the essence of a phenomenon by pushing the *eidos* of the thing beyond what can be imagined.[18] The second stage could be seen as a training of the imaginative faculty in two directions: firstly to free up the imagination and

then to constrain it within the realms of what is possible for the phenomenon being studied.

3. Seeing in Beholding

The first two stages of the Goethean method could both be characterized as an engagement with the phenomena, first by seeing its outer static appearance objectively and then by experiencing something of its inner processes. In the third stage one attempts to still active perception to allow the thing to express itself through the observer. We attempt to step outside of what has gone before and make space for the thing to be articulate in its own way. The previous stages are supposed to form the ground from which one enters this third mode of perception. The detailed information is somehow transcended, but just as exact sensorial fantasy requires exact sense perception to anchor its dream-like activity, seeing in beholding needs the content and the preparation of the other two stages if the researcher is to articulate the thing. Goethe terms the changes that are necessary to our everyday consciousness as the development of "new organs of perception".[19] An analogous process would be exercising to develop the muscles necessary to dance and the dancing itself.

What is striking about the experience of the third stage is that insights which come can counter one's usual thoughts. It is exhilarating, as what comes can seem so foreign to oneself that it feels given and as if from nowhere. This stage is expressed in emotional language although, paradoxically, it is said to be the least subjective of the stages I have described. What is expressed is the being of the phenomenon, something of its essential nature. This 'seeing in beholding' or 'heart-felt getting to know' can be expressed in many ways, but its inspirational nature is usually reflected in the use of poetry, painting or other art forms.

To experience the being of a phenomenon requires a human gesture of 'self-dissipation'. This effort is a holding back of our own activity—a form of receptive attentiveness that offers the phenomenon a chance to express its own gesture. The result of this effort may be an inspirational flash or Aha! Participants use such expressions as "it was so obvious", "it was there all the time" and "why had I never seen the connection before?".[20]

4. Being One with the Object

The first three stages of the Goethean method involve different activities and ways of thinking, and these could be characterized as first using *perception* to see the form, second, using *imagination* to perceive its mutability, and, third, inviting *inspiration* to reveal the gesture. The fourth stage uses *intuition* both to combine and to go beyond the previous stages. In terms of a Goethean methodology each of the stages is dependent upon those which precede it. Therefore it is not surprising that each stage is more difficult to explain outside of the context of having experienced the previous stages.

Being one with the object in this fourth stage allows the human ability to conceptualize to serve the thing: we lend it this human capacity. When the phenomenon being explored does not have the ability to think, it is the most participatory part of Goethean observation. This reveals the importance of a thorough knowledge of the phenomenon drawn from the previous stages. Our ability to think creatively and to initiate future action is the faculty being used

here and thus the dangers of abstract creation not tied to a phenomenon are great.

What becomes possible at this stage of perception is, in the inorganic realm, the appreciation of laws and, in the organic realm, the appreciation of type. For Goethe type is more than a descriptive plan shared by plants or animals and thus requires more than an exploration of the outer form and its constituent parts. Being one with the object allows an appreciation of the content or meaning of the form as well as the form itself. This content is only available to thinking as only in the process of thinking can the outer appearance of the thing and its inner content be combined by conceptualization. At this stage of the process of Goethean observation it is acknowledged that the phenomenon is at its least independent of human reason.

With some forms of study the process does not end with the fourth stage. For example, if in the study of a landscape the process is to involve future developments and buildings then a further three stages are necessary. These three stages mirror the third, second and first as described above. For example, the sixth stage would mirror the second by trying out in imagination and with different models and plans, the various design options to see which could 'grow' in a particular place. In this situation the fourth stage is a switching point from what the place is saying to what can be developed there. The moral implication of being empowered to act by having an intimate knowledge of another being is often experienced by participants as an awesome responsibility.

Goethean Observation of Landscape

The previous section described the four stages of Goethean observation, but this depiction is perhaps too differentiated and distanced from real practice. Presenting the structure and ideas behind the practice of Goethean science may be useful as an introduction, but is not the best way to give the reader a sense of what it is like to participate in these practices.

In this section those different perceptual modes are applied to a 60-acre parcel of land that lies at the foot of the north-facing slopes of the Lammermuir Hills, 20 miles east of Edinburgh in Scotland. The land, called Pishwanton, is a condensed mix of woodland, scrub, pasture and bog with a spring and two streams passing through it. The name means 'much water' with the derivations suggesting both an annoying amount and that it is playful or capricious. When the following survey was conducted the land was an unused corner of farmland with the possibility of it being purchased and developed in some way. I became involved through an initiative called The Pishwanton Project which gathered together people interested in Goethean science with the aim of carrying out a Goethean study of the landscape. The participants were from a range of disciplines including the arts and environmental sciences and most had taken part in the Life Science Seminars. Our intention was to 'read' the place to see if it could be a future base for Goethean-style research. Those organizing the project would not have been comfortable with imposing a research centre that would involve changes to a place without seeing if the kind of changes envisaged would be appropriate to the place. There was no prior plan other than to find the right place to 'take forward' the work that had been started in Britain and develop a permanent home for it. The way the research centre would develop would be informed by the place in which it was developing. There are

obviously problems conceptualizing this process in a strictly causal way, but I gained the impression that it would be wrong to have a definite plan and impose it on a conveniently situated place and yet some germ of a plan was necessary to begin the process at all. It seemed that there was no firm idea of an end point, but a testing of possibilities with the potential site having some input into the final plan.

The first phase of the project attempted to apply the four stages of Goethean observation to Pishwanton to gain insight of its *genius loci*.[21] As the aim of this section is to get across the experience of attempting to apply this method it is more descriptive and the reader will need to be responsive to the more fluid application of the four stages.

Day 1: first encounter

I had heard a little about the project through my contacts with the School of Life Science, but had never seen the place that people were talking about. When there was to be a weekend study I decided to join in. I was met from the train in Edinburgh and taken directly to Pishwanton so that I could get my first impression of the place before meeting and discussing it with the rest of the people who would be taking part that weekend.

A road borders the site close to its highest point. A rusty metal gate marks the way through an open woodland of Scots pines to the right and denser conifers near the fence to the left give way to birches. I skirted the pines to the summit where there was a dip surrounded by the tall Scots pines and a few larch. One of the larch had fallen but was proceeding to grow in a horizontal position. The land was also dotted with the remains of tree stumps skeletal and broken by age. The sea was just visible to the north-east. Moving down this slope, we passed a small area of recently planted birch trees. In the low winter sunlight they appeared as a sea of apricot trunks and dark twigs. Some horses roamed on the lower rough pasture. The land appeared to be crossed by many gullies—some running with water, others boggy. The driest part curved around to the east and the foot of a tree-covered hillside was marked by some large beech trees, deep orange and gold.

The mood of the place changed dramatically around these beech trees. This sudden shift reminded me that I should be absorbing such things and observing my first impressions.

The whole place presented to me the word 'precarious'—a description I later discovered had cropped up before, but usually with regard to the natural habitat. To me, the precariousness was more of a sensation of being on top of a surface even though the land was quite sharply contoured with lower-lying parts and numerous 'refuge' features.[22] The whole area of the Lammermuir Hills had something of this quality, but Pishwanton seemed to express it. If the whole felt like being on a table top then Pishwanton felt like being near the table top edge. Another strong impression was a lack of 'earthiness'. Some places feel heavy and fixed which can be very calming. It was not like that here at Pishwanton which perhaps contributed to this impression of precariousness.

Knowing that I would be expected to contribute my first impressions meant that these almost indefinable feelings about a place had to be observed and remembered. That requirement made me consciously ask: what was the shift, the difference about the feel of the area around the beech trees? The beeches looked

like an avenue across an English park attached to a stately home. In contrast there was something very ancient, primeval even, about the hill top under the pines: it imposed a serious mood. The flatter areas had an abandoned feel. The strongest shift in impression was experienced at the boundary between the beeches and the lower rough pasture and bog that stretched from the foot of the hill to the stream and the boundary fence.

Retracing my steps to the car at dusk I seemed to be accompanied by the rooks who were beginning to wheel and screech about the Scots pines closest to the road.

Day 2

The next morning all those who were taking part that weekend gathered to practise the first two stages by observing and describing a plant. In the first stage of observation we described the static facts about a plant and then moved on to seeing the mobility of the form through the plant's leaf sequence. Each participant removed the leaves from their plant and laid them out in a spatio-temporal sequence, from cotyledon to sepal. This was a condensed version of the technique discussed in the Exact Sensorial Fantasy section. Here we were looking at the plant to remind ourselves of the process we were about to use to view the landscape. We experimented with looking at the sequence after two of the leaves had been switched to experience the disharmony that is then so starkly evident. The disruption of the flow from one leaf to the next created a feeling of unease and I noticed a shift in my breathing. In the first stage we had been looking at what is there. The sequences helped us to make the connection between what is there in the plant and the plant as a growing changing form. To see the way in which the plant is built out of the past, for example in the way the soil was treated and the amount of sunlight it had been accustomed to, helped to attune us to seeing the connection between 'what is' and 'what was' and the way our individual plants of the same species were expressing something of where they had grown. Moving from seeing the bare facts of the place to how it had arisen out of its past was the quality of perception we would be using at Pishwanton that afternoon.

The five people participating were all going to work in one area on this occasion. After lunch five people stood on the lower ground of Pishwanton and used their earlier first impression to say what smaller part they would be working with of the chosen area.

One boundary of the area was the row of large beeches and so I spoke about my impression of a shift in the feel of the place around these trees and expressed an interest in looking further at the 'what is' from 'what was' of this area.

I began by walking the length of the beech trees and back again to see the lay of the land from both directions. I was feeling totally lost at this point, faced only with my ignorance of landscapes, geology, farming, plant ecology, etc. However, I made a start with the 'facts' stage. 1 recorded the different types and position of each tree and also whatever evidence there was of a fence. Pieces of old wire embedded in tree trunks and rotting fence posts among the leaf litter dotted the whole length of this tree-lined ridge. From this I was able to include a fence in my picture of the land's more recent use. The few very mature hawthorns under the beeches suggested a hedgerow; the beeches appeared to have been left to grow after a hedge was removed, and they were now

magnificent with smooth green/grey trunks, massive yet sinuous. At some point the ridge itself had probably been a path. Its original route was hard to follow, as some of the branches were bowing down across it and the hawthorn was a straggle of prickles which caught at my clothes.

Although I was supposed to be recording objectively I was still struck by something about the area and decided to view it from across the stream. From there my strange feeling crystallized into a realization of the trees as an anomaly. It reminded me of the test of the misplaced leaves in a sequence: they just felt wrong. Things then became personally difficult: the trees did not fit, they did not belong there, and yet I had no idea why. The huge implication of this insight weighed heavily. If this was what an insight through this method felt like I was not at all sure that I wanted one. Until that moment I had always considered all trees as beneficial—to me trees were simply *good*. Apart from reeling from the awareness of my own naïveté I also began to worry about how I was to relate this to the others. Assuming that they would also feel protective towards trees, how would they receive my findings? Perhaps others had also felt this. If I was right then surely they will have done, but then my observation might be the final evidence and at some time in the future they would be felled because of it. I tried to see the trees as a natural development of the landscape to test my impression, but it did not work. I realized that the indigestion I had suddenly developed could come from looking at these misplaced trees. Walking back across the rough pasture I realized part of the striking effect was due to the break in continuity between the colours which blended so well between the marshy sedges and the bracken and trees beyond the beeches. Perhaps in spring colours they would blend in. To round off the historical reconstruction I examined the trees for evidence of pollarding and surmised that they may have been left from the original hedge for providing firewood and more recently utilized as fence supports.

We returned to the car to the raucous screeching of the rooks and continued working until late evening. We shared our findings and pieced together a picture of the land since the ice age. Our plant ecologist's knowledge meant that the more recent centuries could be quite precise. We also used 18th and 19th century maps. From these the straightness and speed of the burn was explained by the presence of a mill further down the valley. The burn had been straightened across the whole length of the Pishwanton land and then diverted at its south-east side. The water reverted to its burn-like meandering from the fence.

The use of maps and orthodox scientific methods, for example plant ecology and hydrology, may seem strange when Goethean observation is compared to other phenomenological methods. Husserl's critique of science has become misinterpreted as an anti-scientific stance which all phenomenological research must endorse. However, here it was evident that Goethe's scientific work was being used as guidance on pursuing an understanding of phenomena. In his work he does not eschew knowledge gathered by other means, but sees it all as useful. The problem with what Goethe terms the "Newtonian" approach is not that it is inevitably wrong, but that it must not be privileged above experience or the knowledge of, for example, 'local people' with a lifetime's acquaintance with a place.[23] All interpretations are seen as useful in building up a picture and thus Goethean scientists will also be interested in accessing local legends about a place, or finding out about the folklore and symbolism around a particular phenomenon.

The maps together with the impression of one of the participants of the artificiality of one of the boundaries of Pishwanton were used to prompt us to approach the land from a different side to see the site of the mill and to enter our area for observation from a different direction.

Day 3

The next morning the same group began with a collection of leaves and flowers and we tried to say in what way the flower was the expression of the plant and if we could see that expression dormant in the leaf. In this way we made the transition from looking from present to past to looking from present to future. Out on the site we would attempt to perceive in what way the landscape was trying to express its possible future, that is, what developments could be drawn from the 'gesture' of this particular place and brought to fruition by human intervention. Having so recently been disabused of the notion of an easy hands-off approach, the element of responsibility that development implies still troubled me. However, this idea of inherent 'gesture', whilst increasing the responsibility, did offer a potential way of sharing that responsibility albeit with the landscape itself.

We made our way from the road on the south-east side across farmland. The only evidence of the mill was a grill where the water would have begun its descent to the wheel. Following the burn we could see clearly what one of our group had been studying the day before. The sweep of the land into the area under Pishwanton wood was very artificially broken up by the clearance of trees on the hillside and the fence which was the present boundary. The burn made a large sweep at this point and, standing on its gravel bank, I had the strong impression of children playing there. Another participant shared this and I think we assumed it was connected to future plans although I later wondered how we knew this rather than assuming it was from the past.

Back at the beech trees I walked up and down behind and in front of the trees to find the original path. In the terms of the leaf sequence, I was trying to fill the spaces between the leaves and to see the landscape in the flow of time. Using the hints of past use that were around I formed the impression that this was at one time quite a busy link between the neighbouring hill forts. The original path lay between the hill and the lower marshy area and was used as a dry wide track way. I tried drawing it before the trees were planted and could not resist adding a person driving cattle along, some of which were investigating the slopes down from the path and the wetter marshland. Where a nearly dry gully cut across the pathway I added a stream and small bridge of the type we had seen further up the valley. This all seemed very speculative but it helped me to experience transforming it in some way before taking it forward in time. In my imagination I moved the site through its recent past: the planting of a hedge, the attempts at draining the pasture, then the clearance of some wood and the hedge falling into disrepair, then a fencing off of the hillside from the lower ground for grazing and the removal of wood. In this way I brought the area through about 200 years and, with that momentum, took it forward into the future. Here of course the enormity of removing the trees was my main concern. The very first tree, slightly apart from the rather cramped row, stood near to the gully: a place which had been, in my scenarios, a natural resting place on the path through the valley. A single large tree here, I felt, could well express that

change in activity. It could function both as a sign and practically as a place to stop, to rest, to think and to meet. The other beeches only detracted from that.

My earliest impressions came back to me as we made our way back to the car. It did seem that this piece of land had been subject to many failed attempts at taking it into farming profitability. In a sense it had always been experimented with, which could bode well for the proposal to set up a Goethean research centre there.

We shared our impressions and the results from our various investigations and it was here that the word 'precarious' came up again and again. Pishwanton as it appeared to us wore two aspects: one from its past as an unworkable bit of a farm that was more trouble than it was worth, and the other from its extremely varied natural habitats all condensed in a small place and expressing many future possibilities. What was deemed necessary was to value it for what it was and its real potential rather than trying to, for example, drain it or make it more like the other surrounding pieces of land.

Pishwanton Revisited

Returning to the area after a year I was given another opportunity to experience and observe the application of Goethean observation to landscape. Further studies during my absence had helped to consolidate the idea of purchasing the land for some form of study centre. The plans had reached the stage of verifying that general idea and finding specific locations for particular activities. My own concern was to observe others using this approach and perhaps to reach an answer to the unresolved problem of the beech trees from my last time at Pishwanton. (The trees, I discovered, had emerged as problematic in several studies, but firm conclusions are reached very slowly with this method. In fact the trees are still standing and are likely to remain.)

We discussed the plan for the next days. The intention had been to agree on an area, as in the previous study, and then for each person to take a different phenomenon in that area. The area we had decided on was the south-west corner. This had not been looked at in great detail by any group although it had figured in various maps of the whole, for example a bird song map and many of the mood maps.

After a silent walk and then a night's rest we sat on an area of dry bracken, exchanged our initial reactions and discussed what aspects of the chosen area we would be studying. Three of us had individually come to a very similar position: on the previous day we had been drawn to the relationships of the various parts to the whole place and the way in which those relationships were mediated. One participant wanted to look at the various water channels: streams, ditches, etc. but would end up in this south-west area after seeing water in the whole. Another participant wanted to look at the aspects viewed from each boundary as a way of finding the special gesture of each boundary before focusing on the south-west boundary. I wanted to look at the network of paths around the place and only when a sense of the whole network was achieved would I then focus on the entrance and how people would arrive and connect to the whole. Although the area of the south-west corner had already been decided this renegotiation of how we would go about it was agreed. Someone chose the various areas of trees and the spaces between them; and someone else wanted to "crystallise the whole plan" to come to a sense of the role or duty of

Pishwanton. (The problem with this choice of a starting point will emerge later.) Another participant was also somewhat impatient and wanted to decide on the place for the first building, a site hut, something that would help all further work from a very early stage.

This process of negotiation brings out several points. For some of the participants the silent walk was interpreted as having yielded an important check on our plans: we had intended to stick with one area but the place had said no. As I was a member of that subgroup I can recall how it felt. I was happy to go along with the initial plan but when I felt drawn to a particular phenomenon, paths, it seemed that, at least initially, I would need to approach it from the whole. When someone else voiced a similar problem with the aspect from one boundary I expressed my feeling and so did two others. In this way the initial plan was changed and it seemed that the change had arisen from the place via the method, at least its preparatory stage. However, it should be noted that our subgroup included the most experienced practitioner. If she had been in the other subgroup who seemed to be rushing to a concluding stage would we then have interpreted that sense of urgency as being dictated by the place? To a certain extent these questions need to be put to one side in order to enter the process as fully as possible. However, it is interesting to note that slavish adherence to method is discouraged in phenomenological environment–behaviour research: "method is important but it must always be contingent to the phenomenon, arising from its nature and its needs".[24]

To further the sense of sharing the experience of approaching a landscape in this way I shall use my own journey through the following days as I attempted to see the 'what is', to move in the 'what was', to listen to and behold the real nature and to express the inherent potential of the pathways in Pishwanton.

Beginning with the paths I recorded the 'what is' by following where the most obvious visible paths were. I walked along them, watching where they took me and noting the condition and degree of definiteness about them. Some were well-worn paths with little vegetation over the rock and earth, others were meandering lines of shorter grass that weaved between the gorse and young birch trees. Another path that I had not seen before was a recent development (post-1960s) of railway sleepers forming a vehicle track from the main path up to the corrugated sheds. This path, although the widest, was already covered with tall grasses. With the subject of paths it seemed that I was being drawn towards the second perceptual stage of exact sensorial fantasy and seeing them as paths with a history. After completing my record of the place and condition of each path I moved with a sense of relief into this second stage.

I walked each path again trying to see where they had probably continued rather than having to stop when the physical signs petered out. The beeches of my earlier study now had to be encountered again. The row of eight, now mature trees, was planted perhaps 200 years ago as a hedge to skirt what might have been the principal track way through the valley and perhaps at one time a boundary between the hillside land and the valley bottom. The strength of a sense of passage through the valley along this line was still strong even though the actual path is obscured by the trees and its line obstructed by a fence.

Although my historical picture was building up, experiences such as the lack of a path-like feel to the overgrown railway sleeper track drew my attention to the different qualities I had felt on the various paths. It seemed that my mood
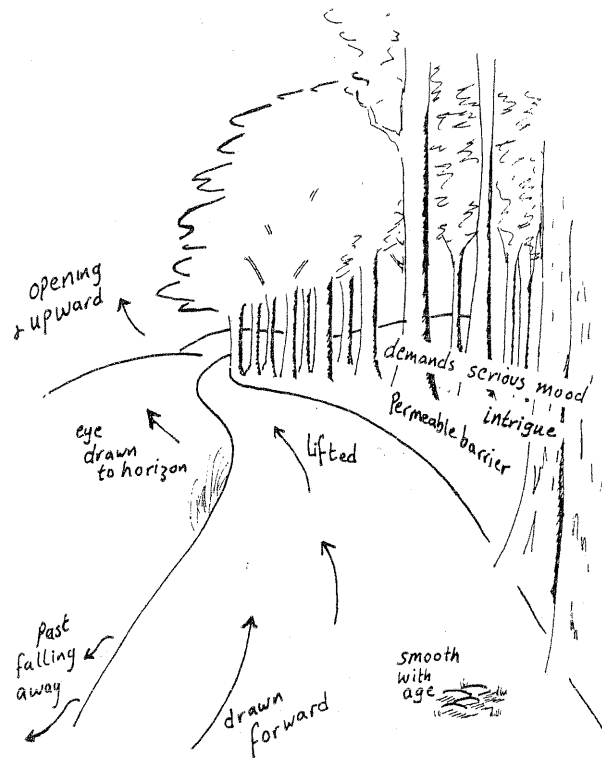
Figure 2. Field notes on experiencing a path.

was shifting with each path experience and I was drifting into the third stage of seeing in beholding. In my field notes I recorded:

> Paths feel very different some carry one along—drawing one forward.[25]
> Some feel more like a clear space between things even when there is nothing there to set the boundary of the path. Others are animal tracks which move in a jerky meander whereas the 1st type is a sweep or curve.

A path of the 'carrying one along' type is shown in Figure 2.

I walked the paths in both directions trying to open myself to what it was they were saying. I also tried walking off the paths. In some areas this was hard or almost impossible because of obstructions. Even in open areas it is just harder to walk 'not on a path', not because of long grass or boggy areas but because there is a constant decision-making process. It felt as if when we move through a landscape on its paths we are drawn through it not just by the structure of the land itself but by the ease of repeating the actions of people who had passed through the land previously.

I now added a few notes about the very different feel of each path and the changes I felt as I moved along them. The dominant impression I gained through all of the procedures was that the paths were linked to time in a fundamental way. Because they were about time, these insights seemed to throw me back into the second stage. However, they were not exact sensorial fantasy or living-into-

the-flow-of-time type observations: it was as if time was speaking. The relationship between time and the paths was part of their gesture. I saw how time seemed to be fundamental to their immediate use, speeding one's way, and how an intermediate time dimension revealed their development out of long-established patterns and an almost eternal aspect of their connection to the underlying rock. The focus on patterns in time seemed essential to all paths, but what of the gesture of paths at Pishwanton? The paths seemed emblematic of the crux of the question which pervades the whole of this approach to landscape. How much of the given must be retained and how effectively can new paths be superimposed? Paths which do not connect to past uses will perhaps not be successful and those which are more entrenched in the geomorphology or social history of the place will always exert a pull. Would people always be drawn to retrace the steps of others, or can we impress a definite stamp on the landscape which reshapes whatever it is that draws us along well-worn paths?

The power of pathways to elucidate the pattern of the landscape was becoming clearer to me and with it an inkling of why the beech trees had appeared misplaced. They were a clear example of something symptomatic of the land as it is now: the many projects started and never continued so that their legacy, often semi-redeemed by nature but unguided by further human intervention, now presents problems. In a sense the problem was not the mature beech trees but the leaving of a hedge untended so that it obscured a more permanent and fundamental landscape feature.

I was aware that I was slipping into the fourth stage and my observations were beginning to answer my own questions. I tried to reconnect to the sense of an insight being given by the place and to record the sense of it before we shared what we had each perceived of the gesture of Pishwanton.

We began by sharing where we had reached in our individual work. This was mainly a very positive coming together with each contribution bringing a new angle and yet resonating with what each of us was feeling. Out of these contributions the aspects that could be construed as shared were: (a) the gesture of the place being multifarious, (b) the need for positive human action, and (c) the need to start in a small but very planned way so as not to fall into the same errors that had created the problems the land now had. Examples of (a) were expressions such as "patches of difference", "because it holds so many different things it prevents one thing incarnating" and "the fluidity can be kept by lots of things going on with no centre or one thing". An example which combines both (a) and (b) comes from the study of the boundaries.

> It connects to the surrounding nature but needs our activity. These are strong basic gestures here but they need us to make them conscious and express them. This is a place for humans of different interests—so there is a separateness and a joining.

It had never occurred to me to look out from the place at each of its boundaries to see how it sits in the wider landscape. The poem which began this paper came from Warren Bauer's study. This study eventually took the form of four poems about the very different nature of each view of the horizon. This is a good example of how a group of people can have very different ideas and abilities and yet, through this method, contribute their results to a coherent whole.

Sharing the results of our individual work was not always without some tension and surprise. Although all of those participating were aware of the steps we should each be taking it already seemed apparent that the participant who had wanted to "crystallize the whole" was not being as rigorous about the first stages of seeing what is physically there and imagining its development through time. The contributions she had brought to the previous joint sessions had lacked any concrete descriptions or pictures that would help us to see the process through which she was working. On the previous day she had come to the conclusion that the piece of woodland on the south-west boundary was a quiet place and should be preserved as it was. This was in direct conflict with the impressions the rest of us had of this small plantation of larch and Scots pine. The Eastern European nationality of this member of the group may have had a cultural influence on her liking for dense planting of larch trees. The English, particularly, have a preference for deciduous trees[26] but the group contained several nationalities including Australian and South African and the place which we were attempting to see was Scottish Lowlands. Her conclusion was so utterly different to the ideas that both we and previous groups had come to that she was questioned as to how much 'looking at what is there' she had done. On this occasion she rather shocked everyone else by suggesting that the car park for Pishwanton should be in the very south-west corner and up onto the hillside. This was suggested so that the cars would be kept, as much as possible, out of the main area. The idea was to see the boundary as a kind of sieve to determine "what should come in and what should be kept out". The response to this was a very controlled but nevertheless physically visible disagreement from the rest of the group and even "but you can't possibly put a car park there!". Behind our resistance to her observations and suggestions were some practical points: a car park on the higher ground of the south-west corner would use the only good pasture and would be visible from all the other areas. There was also a very real sense that we felt we were connecting to, rather than constructing, a shared vision for the place and that these other ideas were not only impractical, but were coming from abstract concepts about the place rather than the place itself. It was suggested that she spend more time up on the far south-west corner and look across to it from the other two mounds.

At the end of the last day we guided each other around where we had been working and a reasonably consensual plan for that particular corner of the land emerged. Again one participant was somewhat out of line with everyone else as she disagreed with the place for the first building. However, she later admitted to seeing that she was not working through the method diligently. She felt that pressing issues in her personal life had led to her impatience to come to the final picture and were preventing her from really seeing clearly. Having someone so out of step with the process was interesting in that it held us back somewhat and emphasized how we needed to be very careful at the planning stage. We had checked our original perceptions of areas because of the lack of agreement. Also, it seemed to me indicative of the method working, especially as that participant later agreed that she had not stuck to the method and she was the one person whose perceptions of the place were so different that they could not be reconciled with the broadly similar conclusions the others had reached.

The group sharing in this style of research is similar to the phenomenological technique of intersubjective verification[27] where generalizations about a phenomenon are uncovered through sharing individual experiences. As with all

group work the social–psychological pressures of conformity and the adoption of habitual roles are always present. Having someone in disagreement seemed useful in the method as it made me check my own findings and, as an observer of the method, it was also useful to see that there was an opening for dissent.

Conclusion

What emerged from the study is the dissolving boundary between place and person, as expressed in the poem at the beginning of this paper. The questions that arise from that interaction are always focused in some way on the inter-action itself. So apart from a slow movement towards consolidating the future plans for Pishwanton each of the participants learnt something about the nature of their relationship to place.

My own impression from the work was to see more clearly the activity of time both in the process and in the landscape itself. Using the imagination to enter into time in an active fluidity helps when experiencing landscape: it unravels the discordances that are apparent and should help in planning for the future. (This entering into the landscape is not an interpretation of significant pointers according to learnt rules, but an active participation in the being of the land.)

Something that became very clear about Pishwanton was the way in which the relationship between time and trees is instantiated in this place: in the harmonies and in the discordances. The time scale of tree growth is beyond human lives and yet somehow not beyond our living imagination. The trees seem to act not just as a record to a broader than human time span but also as indicators of that process of imagining time outside of ourselves, our lives, our futures. In this way they form a key to processes which can then be extended even beyond the time scale of individual trees.

The paths were another instance of the integration of human activity on all aspects of the natural world. They follow a line partly dictated by rock and yet also shape not just the plants and animal patterns but also the rock itself. Yet the paths mediate not just our relationship to the 'natural aspects' of place but also our relationship to its past human inhabitants. Christopher Tilley speaks of paths as "sedimented traces of activity".[28] The patterns they moulded from, and back into, the land draw us along a laid out route, a set passage through this place. At Pishwanton that pull seemed stronger than 50-year-old land divisions or 200-year-old trees and yet there has been a complete break of human use. We had not been raised in the habitual patterns of this particular place or initiated into its past uses by older inhabitants. Yet by persevering with attentiveness we began to feel the patterns of passage. The habits of movement that those patterns drew us into are not our own personal ones but some kind of recapitulation of the resonances of humans moving through this place. With examination of the sedimentation of movement through place the stark division between the human beings and place is broken. With the example of paths the phenomenon itself points to the paradox that is central to this method. Either the phenomenon is socially/culturally constructed and there is no firm ground, no one correct interpretation beyond that, or there is a reality which our flawed human interpretations can never accurately reach. What Goethean science attempts to do is retain and use the sedimented meanings that arise from human action and ways of knowing, but also claim direct perception of reality—to meet the

phenomenon as it is. It is a paradox which others commit. Arnold Berleant seems to express the trap and then fall into it when he says:

> We must enlarge our perceptual consciousness and expand our sensory acuteness, for as cultural animals we are not children of the immediate present alone. Human perception blends memories, beliefs, and associations, and this range of meanings deepens experience. The essential problem here is to keep the meanings true to the directness of sensory awareness and not edit that awareness to fit our customary meanings.[29]

On paper it is a paradox, but in the field, in attempting to carry out the four stages of Goethean observation, there does appear to be a cleansing of the personal and arbitrary meanings and an insight into more fundamental meanings. One feels the boundaries "shift between", as expressed in the opening poem, *"I and World"*. In attempting what, on paper, seems impossible, something does take place which I can only express as an increasing substantiality in the phenomenon examined—the thing is *there* in a way it was not prior to the systematic close observation.

Effectiveness does carry its own dangers. I explained above how in the third stage the insights which arise can seem given and alien to oneself and this could be taken as an insight from the phenomenon itself. If one is empowered to act as a result of these insights then it is crucially important that they do not arise from personal wishes and that they can be justified on other grounds.[30] The issues which arise with the method of Goethean observation are the same as those of phenomenology, but its four stages can be seen as a way forward. In the study of landscape it means that we can respect and use the findings of other sciences, the views of local people, aesthetic judgements, etc. but maintain as central a guided and trained receptivity to the phenomenon itself.

Notes

1. For a selection of papers see Amrine, F., Zucker, F.J. & Wheeler, H. (Eds) (1987) *Goethe and the Sciences: a reappraisal* (Dordrecht, D. Reidel Publishing Co.).
2. These were courses run by the Goethean scientist Dr Margaret Colquhoun and the sculptor Axel Ewald. Their aim was to allow people to engage in 'a process of awakening through experience' and the approach they used was developed from Goethe's method as interpreted within an anthroposophical framework. These courses are now organized by Dr Colquhoun as part of the Life Science Trust, a registered charity which can be contacted at Kirk Bridge Cottage, Humbie, East Lothian.
3. For examples of applied Goethean science, see the journals *Elemente der Naturwissenschaft* and *Tycho de Brahe Jahrbuch für Goetheanismus*. For examples in English, see Bockemühl, J. (Ed.) (1992) in: Meuss, A.R. (Trans.) *Awakening to Landscape* (Dornach, Natural Science Section of the Goetheanum) and Riegner, M. (1993) Landscape reading, in: Seamon, D. (Ed.) *Dwelling, Seeing, and Designing*, pp. 181–215 (New York, State University of New York).
4. It should be noted that what is represented here as the method is one interpretation of Goethe's methodology being practised in Britain. As with any live tradition there are constant reinterpretations, developments and debate about what Goethean science actually is.
5. Eckermann, J.P. (1935) in: Oxenford, J. (Trans.) *Conversations with Goethe*, p. 66 (London, Dent and Sons).
6. Goethe, J.W. von (1807/1988) Theory of colours in: Miller, D. (Trans.) *Scientific Studies*, p. 159 (New York, Suhrkamp Publishers).
7. Kant, E. (1781/1933) in: Kemp Smith, N. (Trans.) *Critique of Pure Reason*, 2nd edition (London, Macmillan).
8. See Pickles, J. (1985) *Phenomenology, Science and Geography* (Cambridge, Cambridge University Press).

9. On courses, I have observed that students do seem to choose things that seem strangely apposite. This phenomenon extends to the choice of plants with particular healing properties by students, with no prior knowledge, whose medical conditions can be helped by that particular plant. There is currently a lively dialogue developing between Goethean scientists and medical herbalists. Pishwanton, the location of the field study discussed in this paper, has been the site of two joint conferences between the Scottish School of Herbal Medicine and the Life Science Trust.

10. Moustakas, C. (1994) *Phenomenological Research Methods*, p. 74 (London, Sage Publications).

11. Goethe, J.W. von quoted in Asma, S.T. (1996) *Following Form and Function: a philosophical archaeology of life science*, p. 43 (Evanston, Northwestern University Press).

12. Goethe, J.W. von (1988) Maximes and reflections, in: Miller, D. (Trans.) *Scientific Studies*, p. 307 (New York, Suhrkamp Publishers).

13. Sepper, D. (1988) *Goethe Contra Newton*, p. 45 (Cambridge, Cambridge University Press).

14. Tuan Yi-Fu (1994) *Topophilia*, p. 11 (Englewood Cliffs, NJ, Prentice-Hall).

15. Goethe, J.W. von (1798/1988) Empirical observation and science', in: Miller, D. (Trans.) *Scientific Studies*, p. 24 (New York, Suhrkamp Publishers).

16. Goethe used this exercise to study "the doing of the plant" as opposed to recording only its momentary or flowering form. See Lehrs, E. (1985) *Man or Matter*, 3rd edition, p. 89 (London, Rudolf Steiner Press).

17. For a discussion of seeing something differently without seeing a change in its content related to the *noesis noema* distinction from Husserl see Bortoft, H. (1996) *The Wholeness of Nature: Goethe's way of science*, p. 282 (Edinburgh, Floris Books).

18. See Chapter 8 of Brook, H.I. (1994) *Goethean Science in Britain* (University of Lancaster, Department of Independent Studies, Doctoral Thesis) for a comparison of free imaginative variation in Husserlian phenomenology and exact sensorial fantasy in Goethean science.

19. Goethe, J.W. von (1823/1988) Significant help given by an ingenious turn of phrase, in: Miller, D. (Trans.) *Scientific Studies*, p. 39 (New York, Suhrkamp Publishers).

20. Various course participants.

21. For interpretations of the *genius loci* from a phenomenological perspective see Norburg-Schulz, C. (1980) *Genius Loci: toward a phenomenology of architecture* (New York, Rizzoli).

22. According to biological prospect-refuge theory the landscape of Pishwanton should have seemed ideally safe with the possibility of seeing long distances and taking cover. Appleton, J. (1996) *The Experience of Landscape*, revised edition (Chichester, John Wiley and Sons).

23. An interesting connection can be made to the debate about local knowledge, see Wynne, B. (1996) May the sheep safely graze? A reflexive view of the expert–lay knowledge divide, in: Lash, S., Szerszynsky, B. & Wynne, B. (Eds) *Risk, Environment and Modernity* (London, Sage Publications). Goethean science would not, I suspect, privilege local knowledge, but would use it.

24. Seamon, D. (1987) Phenomenology and environment-behaviour research, in: Zube, E.H. & Moore, G.T. (Eds) *Advances in Environment, Behaviour, and Design vol. 1*, pp. 3–27 (New York, Plenum Press).

25. Compare Bachelard, G. (1958/1994) When I relive dynamically the road that 'climbed' the hill, I am quite sure that the road itself had muscles or rather counter muscles, in: *The Poetics of Space*, (Jolas, M. Trans.) p. 11 (Boston, Beacon Press).

26. Porteous, J.D. (1996) *Environmental Aesthetics*, p. 101 (London, Routledge).

27. Seamon, D. (1979) *A Geography of the Life-world*, p. 21 (New York, St Martin's Press).

28. Tilley, C. (1994) *A Phenomenology of Landscape: places, paths and monuments*, p. 30 (Providence, RI, BERG).

29. Berleant, A. (1992) *The Aesthetics of Environment*, p. 23 (Philadelphia, PA, Temple University Press).

30. For a treatment of the issue of moral responsibility in Goethean science see Chapter 6 on the practices and goods of a tradition, in: Brook, H.I. (1994) *Goethean Science in Britain* (University of Lancaster, Department of Independent Studies, Doctoral Thesis).