

May 2019

INNOVATION IS POSITIVE, EXPERIENCE CAN BE NEGATIVE

Analysis of practice and experience in the UK shows us that excessive law leads to overbearing control which smothers freedom, ask any journalist worth his or her salt.

Ask anyone in the position of a leader and you will be told that excessive control restricts freedom to think and act constructively. This freedom is vitally important if progress is to be made in any field. Experience can hold people back. 'But we have always done it this way' is one form of response to the introduction of a new way of doing things, another is that the regulations do not allow it.

Ask anyone with a novel idea that seems to be worth taking to market, the naysayers will be all around. "It's not too difficult to think of new ideas, it is getting rid of the old ones is the problem", now who said that? It was someone quite famous.

In terms of environmental controls we argue at RML that we can achieve much through better practice by taking advantage of research and new areas of understanding about nature. This is our approach to problem solving and surely this is better than relying on existing knowledge and convictions that may be misguided or even based on prejudice. I have said so often that experience can frequently limit freedom to act or freedom to think your way around problems. But there seems to be a reluctance on the part of regulators to adopt our favoured approach of searching out new ways of doing things. My impression of environmental regulators is that they set their faces against new practices that would have an overall beneficial impact but will involve them in re-thinking some aspects of a particular problem. I may be a bit hard on them but that is how I see things. Ivor had moan about how our endeavors to solve a serious problem with Japanese Knotweed and enlarge our business has been frustrated by the regulators and their regulations.

Idris.

DO YOU EVER FEEL LEFT OUT?

It is that time of year, the equinox will soon be with us and Idris tells me that the mammoths are getting twitchy. I am beginning to feel that I am on the outside of a lot of things that other people are excited about. I keep being confronted by more and more requests for analyses on obtuse topics, and I feel that I must be missing something or am being left out of things. To address or avoid this I have been advised to consider joining the gang who seem to be hell bent on felling trees to make paper and filling the resulting pages with garbage that serves no useful purpose. Andrew comes across these people quite frequently and he tells me that they are part of the 'let's have one of those so that we don't feel left out' school of thought. I am sure that you have come across them too. They add very little to life or progress but add considerably to verbiage, lost trees and stress in fellow humans. If we are not careful we will end up with less trees around here – and I like trees.

Where can one find these people? I do not recommend that you waste your time in seeking them out. Have no fear they will find you in due course if you are one of those who like making or doing things that would improve our wellbeing.

What these people will demand alongside detailed designs are a series of documents dealing with;

- A Health Impact Assessment
- A Language Impact Assessment (in Wales)
- An Economic Impact Assessment
- A Social Inclusion Report
- An equality impact assessment,
- A register of thoughts and actions relating to the wellbeing of future generations
- An assessment of the cumulative effects of different proposals, not only ours,

Is there any guidance on what these weighty sounding documents should contain and how the topics should be approached? Not really. I would say that you are on your own. So sit down quietly and reflect on what this is all about. You might be inclined to think these people who are asking for more and more belong to 'back-watchers anonymous' but I couldn't possibly comment.

What this means is that every thought, calculation or line on a drawing has to be justified. And this justification will involve a considerable amount of further study, research and discussion with third, and fourth parties whose opinions can carry considerable weight. To cause you more concern, many of these groups with whom you will hold discussions will take no responsibility for any responses that they might make on your work. All in all you know my feeling about where over-analysis can take us – nowhere at all since the end result is so often paralysis.

Yes, you are very much on your own.

Ivor

MEASURING UP

In his book entitled 'Good Money' [Jonathan Self](#) encourages one to publish ideas, become an ethical entrepreneur and feel better for it.

The book makes very interesting reading and I have recommended it to many friends. Jonathan says that his business which supplies 'quality artisan dog food', his words not mine, is successful on various counts including 'turnover, employee numbers, profitability, publicity and influence', again his words not mine.

"How do we measure up at RML?" I ask myself and "Has the construction industry changed for the better?" Oh yes it has – think health and safety as just one area where significant changes have occurred to everyone's benefit. Thinking and acting with reference to sustainability and wellbeing have become important too.

It is a long time since the Aberfan disaster and I can remember George Thomas, in a meeting in Merthyr that same evening, saying "Never again, this must never happen again". We can be pleased that no such disaster involving coal tips and the like has happened since then in the UK. So I would say that things have improved significantly but winning and processing minerals stills seems to be fraught with many dangers as we have seen so very recently with the collapse of a tailings dam in Brazil – and there was that runaway train in Australia!!

When asked to get on with 'land reclamation' I have mentioned before how we soon realised that derelict land could be an asset if degraded communities could be given some sort of a lift by way of improvements in the local environment. The derelict areas manifested the need for change and created the room for change. What was

needed was a technique that met this need at a low cost. Many communities have seen their overall outlook improved as a result of the work that sprang out of Mr Thomas' instruction. We hoped that new lives would indeed be helped by providing new landscapes as well as improved safety or reduced heavy metal pollution. Our emotion, our hwyl in Wales, drove the programme of land reclamation and our love pity and pride were also involved in creating and implementing change. Such was its impact that [Charles Quant](#) once said that the children at Aberfan might not have died in vain.

I feel that I was given the chance to be an entrepreneur. 40 years ago I brought landscape architects and other environmental specialists into my engineering team. These were new ideas and opened the door to the company where I was involved as a director becoming a bigger and more profitable business. Not only that, it seemed to be the right thing to do from a technical standpoint and we reported widely on our activities. We talked about the need to understand in some depth the qualities and potential of many types of soil and vegetation how these were linked with the rehabilitation derelict or disturbed land. This led to me and my team being asked to work on pipelines across England and Wales where basic rules about handling soil and vegetation had been ignored by the engineers on previous projects with disastrous consequences. Our pipeline projects were extremely profitable for all concerned. I have claimed on several occasions that I have made some parts of the world, well parts of Wales anyway, a better looking place.

Do I feel better for it Jonathan? Yes I suppose I do

Publishing ones thoughts in print or digitally is so easy these days and we have printed and bound some of our newsletter as hard copy. I also happen to believe that the day of the printed page is returning. Some our work which has been published by others such as the Welsh Development Agency, CIRIA, Elsevier and HMSO has been well received and reviewed by other people.

Writing the newsletters is fun, even Idris gets a kick out of putting a few words together when we allow him time and space.

Ivor

OBFUSCATION LEADS TO PARALYSIS

Obfuscation is a human trait demonstrated by many people and can be the death of a great deal of forward thinking and action.

Ivor Richards 2013

To obfuscate – to darken, to confuse, to bewilder, - hardly then the actions of someone who has the necessary qualities inherent in leadership. So often obfuscation is the only contribution that many people are able to bring to a discussion. Obfuscation frequently thrives when analysis extends to over-analysis and paralysis, and again when management by weakly directed committees is the norm. Avoid obfuscation at all costs but it is insidious by its nature and can difficult to counter.

Prediction is usually based on hope and this element can be the factor that encourages obfuscation. If this happens any forward movement is frozen. Disappointment and frustration is the inevitable result amongst those anxious to see progress being made.

In Ivor's experience leading from the future as it emerges is creative, effective, delightfully simple and immensely satisfying. This kind of leadership calls for precipitate action and cuts out any opportunity for obfuscation. Ivor referred to [Otto Scharmer's](#) approach in respect of leadership in March when he was talking about change.

In addition this kind of leadership removes the rigour of corporate planning and I am sure that you recognise that it is at the planning phase of projects that obfuscation can be most damaging. Leading from the emerging

future identifies opportunities and pathways for activities and can cut short preliminary discussions about what and when to do things.

But beware, preliminary discussions provide the environment where obfuscators breed and multiply. Forward facing ideas or activities can be squashed by someone simply mentioning something that darkens and confuses the field of action. We have all experienced this on countless occasions. Be honest, we have all fallen into the trap, the sad thing is that many obfuscators do not realise what they are doing and fail to apologise for the confusion which they have introduced. They probably think that they are being helpful but other darker motives can prevail too.

We are not talking about positive alternative ideas that contribute to an analysis but a few words that can derail the whole thinking process. Let us take a simple example that really happened. A group of people who were intent on promoting science were thinking about getting involved in junior schools in order to advance interest in science amongst the pupils. You may well say "Well what is wrong with that?" Well, hold on a minute. One member of the group interjected "But there are hundreds of junior schools" and discussion stopped dead in its tracks. A classic case of obfuscation. To their credit the group ignored the comment and now support a number of schools to great effect.

As a leader with a burning desire to make progress how can one avoid obfuscation?

One has to be equipped and ready to deal with these circumstances, they are a daily occurrence, and for leaders their main role as doers is to prevent 'good ideas' dying. How does one achieve this? My best advice is to clear away confusion and bewilderment by being focussed and persistent, being single-minded also helps. Ivor was told that he was single minded by a close friend and Past Master of his livery company

Idris.

OVERBEARING REGULATORS

'Watchdogs need teeth but there are dangers in giving them too big a bite' - Graham Ruddick - The Times, 25 March 2019.

Mr. Ruddick was talking about regulation in the financial world and how regulators made serious misjudgments on an international scale that have cost some countries/people serious amounts of money. Graham was having a go at an EU regulator but was making a general point as well. The headline brought me up short on a Monday morning and set my mind off on having another 'go' at regulations and regulators myself.

Following on from the 'The big short', and I enjoyed both the book and the film, then I can understand that the financial world did need regulating but so do many other activities that affect our lives. The environment is one of them and we all know of examples where seriously bad practice has caused problems ranging in scale from a continental impact like the dust bowl in America to a local one like a leaking oil tank attached to a house.

But does Mr. Ruddick have a point? Can regulators be overbearing, overcautious or even obstructionist? Your attitude to regulators will be dependent on your experience of any dealings with them, you may even be part of a team that regulates things such as activities that might disturb areas of special scientific interest or the control/prevention of pollution or landscape management. Whichever 'side of the fence' that you stand on the responsibility to respect nature should be overbearing because as professionals involved in constructing things

our livelihoods depend on it. But many people still have a lot to learn about how nature is resourceful and accommodating and is an approach that we can replicate ourselves especially those that draw up the rules.

I have only been on the receiving end of decisions and actions of our regulators and have thought on occasions that both their bark and bite have been unhelpful. This is especially so when our research work, innovative thinking and proposals to extend the range of activities that we can exploit cut across existing regulations. Where does wellbeing fit in I wonder.

Ivor has said quite often that he fears that regulations can be restrictive for scientists, especially young scientists, involved in being innovative and inquisitive about how nature works and are intent on developing new ways of working with her. He has long felt and fretted that today innovation and imagination are incompatible with regulation and regulators and that young professionals will suffer as a consequence. We must be aware that this could happen and where possible take steps to avoid it.

Idris

SQUEEZING A QUART OUT OF A PINT POT

No I have not got this wrong, getting two for the price of one is a common tactic in retailing but a bit unusual in engineering circles. In a way it has been one of my guiding principles in establishing new landscapes on regraded industrial land where, long before I got involved, 'Grass the forerunner of life had fled' according to [Gordon Bottomley](#). Gordon was an early writer on environmental issues.

Grass was usually absent in any meaningful quantity on derelict sites that I used to visit because the environment was generally inhospitable for plants. The sites were not terribly welcoming in themselves. These sites sloped steeply and being composed largely of bare soil were continuously prone to surface erosion and an unstable surface was not a place where seedlings and young plants could develop to any reasonable size. The surfaces were very dry and generally any plants quickly dried out and died off if they weren't washed away. Nutrient levels were low and anyway in the case of metalliferous mine wastes the metal content in the wastes rendered them toxic to plant life as well. Little wonder then that grass along with a good many other things had fled.

What to do about it was one question that had to be answered and another was what about the cost of the work.

The approach adopted was to work with nature to produce low-cost methods of reclamation and rehabilitation. 'Low cost' involved developing an understanding of the character and nature of the materials that we were dealing with, for example its chemical and physical characteristics, nutrient status, its water retaining capacity, whether it was free draining or not and how it would react to being graded, rolled and compacted as part of a civil engineering project. This was quite a learning curve for us to move along but because we were open-minded and enthusiastic the lessons were learned very quickly. We recognised what was happening was that an emerging future for the industry was ahead of us. I mentioned only recently that we also received good advice from Professor Bradshaw at Liverpool University about how some plants could survive in harsh conditions. He told us about pioneer plants. The idea that some plants were real pioneers was new to us and breath taking. Tony explained how these pioneers would suit our purpose. "You mean that some plants will grow in almost anything" we said. "Oh yes" he went on, "Provided that the physical conditions are right, and your choice of vegetation is right, the plants will grow and you can add whatever you want by way of nutrients to manage the rate of growth". All we wanted to do was to 'green-up' the site without using expensive soil and avoid loading

people with expensive management programmes. The concept of introducing or encouraging biodiversity and self-seeding by discouraging vigorously growing grass came as part of the overall package that Tony delivered.

Brownfield land became an asset because we were able to make more from less. Perhaps we were able to do better than just a quart from the pint pot as time went on because nature got involved too once we had given her some encouragement. Nature provided several bonuses. We enjoyed the opportunities to observe her making her own contribution and the chance to explain to others what was happening.

Our diagram about the relationship between land use, time, cost and biodiversity went down extremely well in international conferences.

Ivor

SURPRISE, SURPRISE, SURPRISE

Now this could be a true story

Idris has been allowed some free reign recently, as you may have noticed, and we should have known better but everyone here has had their heads down for several months. Idris announced this morning that he had brought a friend to work for the day so we all stood around at the top of the stairs waiting for this friend to appear. We were expecting to see an Idris mark 2, even a lady friend perhaps. No such thing, it was a steaming mammoth. "I'll tie him up in the carpark" said Idris. "He is house trained", he added as if that would placate our overwhelming anxiety about how passer-byes or clients would react, never mind the office cat. I am pretty sure that the cat had never seen a mammoth before, we gave him an extra feed to placate him because he was a bit disturbed. Cats know how to show their feelings. I had to keep my feelings buttoned-up.

Things could have been worse, mammoths could be expected to cause something of a stir even in Ruthin, or more likely, especially in Ruthin. A client came up to me asking us to do a piece of work pro bono because he liked us and other people had actually quoted a negative fee to do the same task. I said "Thank you but not really, it's against my principles", actually I lied, because I don't have any principles. After he had pushed past the mammoth on his way out he muttered something about us being all mad and we haven't seen him since. I hope that he had luck with the consultants with the negative fee. We have decided to keep the mammoth tied up outside so as to deter frivolous enquiries, such as "Can you get me planning permission by the end of next month?" But sensible people are enquiring "Why have you got a mammoth tied up outside?" and "What do you use him for?"

Mammoths are very good at creating interest, not because they do anything except stand around and bellow, well not bellow actually, they sort of snort and f**t a bit. Anyway our neighbouring businesses are quite confused, "What is a mammoth is going to do for me?" said the hairdresser, and the opticians could not see the point of it at all. The butcher had his eye on the mammoth too but his plans were not that friendly even if business-like. "Is mammoth steak any different from Buffalo steak?" he wondered aloud. The owner of the hardware shop opposite was intrigued, he thought that he stocked everything but he had not thought of mammoths until we had one on show.

Our contractor clients tell us that they are very impressed, but they haven't explained why. "Is this the future RML" they said but I ignored the obviously barbed comment about our approach to the environment being a bit woolly. I put it down to jealousy, I mean, do you know any contractor never mind a consultant who has a mammoth as a pet. I did draft the last sentence to read 'do you know any contactor who has a mammoth as a pet never mind a consultant but realised that could be misconstrued although.....'

I have been wondering who quoted that fee.

If you need some large animal droppings and shredded paper for your compost heap let Idris know.

Ivor

THE MAIN THING

‘The main thing is to keep the main thing the main thing’ (allegedly an old German saying)

Despite the occasional horror stories about people doing or allowing things to be done that harm our environment I have confidence that in most circumstances people will do the right thing because the right thing to do is to do the right thing - respect nature. The application of our knowledge about how nature works has changed so much in the last 40 years because the boundaries between disciplines and between professions have been blurred. In addition ‘people’ now recognise the impact which the quality of the environment has on the quality of their lives and expect to see their surroundings respected, protected and enhanced.

Engineers have been carried along on this wave of environmental consciousness, some most willingly, others far from willingly if at all. In the old days site investigations for engineering purposes used to be so restricted in what we looked for, we always wanted to ‘look deeper’ down a hole but never thought much about looking around. This narrow (or deep) focus has been overtaken by site characterisation which I mentioned last month in ‘Stamp collecting’. This much wider understanding of what is ‘going on’ in and around a site is determined because of a multidisciplinary approach in which ‘environmentalists’ (what an awful word) play an important part. ‘Stamp collectors’ now make vital contributions to the design and implementation of building and civil engineering projects. As a consequence I feel that natural sciences are in a much better place because of that, they are seen to be of value and have a role to play in society rather than just seen as collections of information of interest to only a few people. The construction industry is in a much better place for it too since working with nature improves both the industry’s acceptance by the public and future business for individuals.

If [Jonathan Self](#) were to ask me if I feel better for this, then yes I certainly do.

Ivor

PROGRESS, PROGRESS, PROGRESS

‘When you destroy a blade of grass

You poison England at her roots’

These are more words from Gordon Bottomley’s poem about ironfounders which I quoted from in my note about pioneers in Jul last year. Gordon died in the 1940s so he did not experience the changes that were

triggered in the 1970s by people like Nan Fairbrother who produced her most seminal work when she wrote about 'New lives new landscapes'. Her book contained the seeds of changes in construction which would see the environment feature in everyday thinking for a great many people. It's sad to relate that a few disasters accelerated the rate at which we acknowledged that the environment in which we spend our days really does have a marked influence on the quality of our lives. I dare say that the Grenfell disaster will have the same effect. I cannot help mentioning Aberfan because it had such an impact on my own life. Aberfan pushed forward my thinking about how our lack of concern for the environment was degrading the lives of people. Communities had been degraded by a lack of concern for the quality of life enjoyed by the residents.

The South Wales communities that I grew up in were vibrant, pretty well everyone was busy. To me life seemed to be full of purpose. They were commercially vibrant communities for sure but when viewed from this distance were lacking many things that now figure in what people regard as wellbeing. The Phurnacite plant making smokeless fuel in Aberaman was a polluter as bad as anything in Eastern Europe, grass and every other kind of vegetation had been destroyed on the hillside opposite. The river flowed black and coal tips disfigured the landscape. The Cynon valley looks totally different today.

I have said before that progress made as a result of disasters is littered throughout history in the UK. The 'big stink' in the 19th century is one that springs to mind and made the MPs think about what was being done to the River Thames and their environment immediately outside the Palace of Westminster. The stink persuaded the MPs that emptying vast quantities of raw sewage into the Thames was not doing them or the residents of London any favours. As a result Bazalgette was commissioned to design his famous sewers which transformed the way in which sewage was collected and transferred to treatment works downstream of the city. It is happening again with the construction of the Thames Tideway Tunnel now that Bazalgette's sewers are overloaded because of the huge increase in the population of London.

Civil engineers and the construction industry in general can claim that progress has been made in applying a deeper knowledge of nature to practices in civil engineering. Environmental specialists have a valuable role to play and some at least are no longer 'stamp collectors', as they all once were. They are valued members of our team. One can still come across horror stories such as a woodland full of red squirrels being approved for felling but mercifully stopped before the felling had got too far. Now that shows how far we have travelled since Gordon observed how uncaring people were about nature.

Ivor

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