

Issue 282
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Welcome back!

To launch the New Year, and
New Decade - what better than
a new project! -



The Asset Management History Project

The Germ of an Idea

Asset management, as a field of endeavour related to, but separate from, asset maintenance, started only about 30 years ago. But what changes it has seen in that time!

I thought it would be a good idea to see if we could set down for future generations how those changes have come about. What, for example, have been the common threads in the development of asset management in local government, in industry, in utilities, and across different regions of the world? And what differences?

My first thought was to ring Roger Byrne, whose history like mine goes back to the beginnings in Australia and ask him whether he would like to work with me on this. His reaction was, "Wow! Should be done, but where we would get the time?" A pretty sensible response, I thought.

And the *only* way it can be done is jointly!

Social History/History of Ideas

As I thought more about the character of the asset management developments that I had been involved with, I realised that, unlike a normal history project that would require the researcher to track down all the relevant documents, this would require much of its information to be gained from the first hand knowledge of those involved. And that essentially means all of you! Whether you have been in asset management for 3 or 30 years.

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Why do it?

It is clear that this is going to be a BIG job, but an important one if future generations of asset managers are to have a sense of where we have come from. And if we can help to avoid the danger of regress that we are now starting to see, and that Roger has observed and documented, where agencies that were good performers fall off the wagon and have to relearn everything that they once (corporately) knew, then so much the better.

This is not a quick project. I estimate that the research will cover a minimum of several years and then the writing starts. Such a big task could so easily prove overwhelming, so what could be the first 'baby step' that we could take to set it on the path?

Where do we start?

1. Identifying and gathering 'agency stories' - how **organisations** have developed their asset management
2. Asking all Asset Managers how you **personally** got started in this fascinating field.

And to Kick it Off

In this issue we have some excellent exemplars.

1, The story of how a city council morphed into Energy Australia and how asset management developed along the way. *In Issue 279 we brought you Rod Smith's story of Energy Australia's maintenance monitoring approach which so changed the culture of the organisation and led to improved performance. But behind that story was another story - the back story: the story of how culture changed within Energy Australia - and how maintenance, and then, asset management evolved. I laughed with delight at the recognition of patterns seen in other places but seldom expressed so well. I think you will too. Who says history has to be dull?*

(For those of you not familiar with Energy Australia, it is a state owned corporation in New South Wales and has the largest electricity network in Australia.)

2. How we got started - the personal histories of just a few of the many hundreds of Asset Managers that I hope will contribute to this work.

Remember, it is YOU who have made AM History!

Yes, every single one of you, acting alone and particularly acting in concert. As you read the personal stories in this volume you will notice how we all build on the work of others.

So enjoy! - and contribute your own exciting story. Without your individual stories, the full history cannot be told.

PENNY

ENERGY AUSTRALIA - by Rod Smith*

*Excerpt from a paper originally presented to the ICOMS Conference 2007



Today I will take you on a true journey revolving around EnergyAustralia's cultural changes and the impact on our asset maintenance. What is "Culture"? Well one dictionary definition of Culture is: "The totality of socially transmitted behaviour patterns ..., and all other products of human work and thought characteristics of a community or population." It is absolutely vital for each one of you to understand the cultures that exist within your own company. I say cultures and not culture to highlight the probability of different attitudes and approaches within different parts of the same company. *Our history is the story of cultural change.*

For all of us now, World War 2 is a major past event in history, but for EnergyAustralia .. or Sydney County Council as it was when I joined ...(well after the war I might add) ... it laid the foundations for a definite approach to work. A direct cultural influence from the war during the 50's, 60's and 70's, was a military approach to decision making. Whoever had the highest "rank" was right and should be obeyed.

We also had a very definitive career path ... either Substations or Mains. We had the infamous "Birthday Books" which would predict your next career move both in position and date. Promotion was based on seniority, and once in the Substation or Mains Branch, you stayed there for the duration of your career, and moved up the ladder in turn.

There were only 3 ways you could disrupt this process and get yourself fired:

- Physically assault someone
- Steal from the company – particularly copper ... or
- Make a decision

As long as you did not do any of these things you would continue on your career path until retirement. We had a culture of technical excellence which was not to be compromised by time deadlines or cost. Life was relatively simple, well organised and secure.

AMALGAMATION AND CHANGE

By the end of the 70's, Sydney County Council had already been involved in amalgamations with many smaller County Councils. This period also saw the end of the enforced "Substations" or "Mains" career paths. Geographical areas came into play and suddenly the cultural challenge of multi-skilling was placed before the staff. For some it was a fantastic opportunity ... for others it was scary and challenging and an area of insecurity.

In 1980 there was another forced amalgamation with 4 large County Councils. All brought with them their own histories, cultures and versions of how to approach work. The early 90's had "Total Quality Management" as a focal point and was utilised as a cultural change tool. This produced a company culture of "Process Naval Gazing" with refined process discipline and improvement. Promotion was now based on "Most Suitable" ... what a novel concept. But at least we were now approaching work with a much improved staff structure. Mid 90 we merged with Orion – the Newcastle & Hunter Valley Electrical Distribution authority ... another very large distribution company. They also had a history of multi-amalgamations with the accompanying variety of approaches to work. This situation really involved the management of multi-culturism.

IMPACT ON MAINTENANCE

The amalgamation with Orion also brought about significant staff reductions ... which was an unplanned catalyst in the further removal of focus on asset maintenance and data capture. The next few years saw an increase in the number of maintenance tasks that were not being completed by the "Due Date". This situation was exacerbated by a very high focus on infrastructure development for the Sydney 2000 Olympic Games. Remember there is a lot of kudos associated with new capital work .. particularly the Olympics ... We had a culture of high praise for both new work as well as a rapid response to breakdowns. There was no glory in Maintenance and no-one got a pat on the back if assets did not fail. Because of the inherent reliability built into our systems, there was no immediate increase in asset breakdown due to this increase in "Non-Completion" of maintenance, but eventually a worrying trend started to show.

In 2000, we realised we were heading for a potential "death spiral" in our maintenance, a point where virtually all of our operational resources would be expended on repairing breakdowns with little or no Planned Inspection work. The company had to be re-focused onto a controlled and planned maintenance approach very quickly ... or we would pay a significant cost in Network Reliability and Senior Management embarrassment. Staff safety was another major concern as we were aware that there is always the risk that staff could be present during an asset failure. In order to solve this problem, there were 2 different drivers which needed to be addressed: the *Technical Issues* and the *Cultural Paradigms*.

THE TECHNICAL ISSUES

In this area, there were 2 key issues to look at.

1st - the FMECA/RCM approach was introduced to identify what really needed to be maintained, what tasks were to be carried out, and how often the maintenance was required. This replaced the one-size-fits-all approach based on historical decisions for which no-one knew the original drivers.

2nd, For this approach to work, the data in our databases needed to be improved in both quality and quantity.

THE CULTURAL ISSUES

As we further developed our knowledge on what maintenance really needed to be carried out, the cultural problem became very obvious when we had to convert that knowledge into to a common company view with an accompanying acceptance of planned maintenance as a valid priority.

There was still a strong view of the importance of building new assets – photos in magazines and public acknowledgement – together with a general repugnance of that ugly sister – "Maintenance" which, as all the staff knew, was really only designed to reduce the extra income available for overtime on breakdown repairs.

We could now produce a yearly detailed worklist for maintenance. However, the old game rules virtually meant that if a good "attempt" was made to address this list – say 80% - then all was well with the world. After all – "the lights are still on" – as we were told by more than one manager.

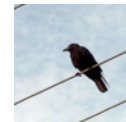
A problem with an acceptance of the numbers game was that the 20% not completed were the assets for which “access to work” was difficult to arrange. This meant that for the next year the problems compounded because the bulk of the same difficult assets were again not maintained. But it was OK because the lights were still on and 80% of the work was again achieved.

There was an incredible lack of focus on these “time bombs” just sitting there with no inspections being carried out on known failure modes.

We were now producing lots of wonderful worklists, reports and statistics which looked really nice but did not achieve any real change because the overall cultural approach to asset maintenance was still firmly locked-in to the old paradigms.

We had addressed the technical issue with the introduction of FMECA/RCM, but we still needed a strategy to address the very real issue of company culture with respect to actually completing the maintenance.

**To continue this story: see Rod's Solution in SAM Issue 279.
Asset Management History is ongoing!**



Rod wrote this history to show how ideas develop within agencies and developing good asset management requires recognising and working with culture change. You will probably recognise elements of his story in your current or former employment. I know I did.

Participate! - Take Your Place in AM History



[1] YOUR ORGANISATIONAL HISTORY

Have you written about the history of an agency, either as a whole paper or as part of another presentation? Do you know of any such histories? I am creating a webpage for the history project where we will place all such stories, with full acknowledgement of both author (and finder, if different). The intention is to make this ‘open source’ content. Anyone will be able to use the

information there in papers and presentations, with proper citation, and we encourage all such work to be contributed back to the site so that the Asset Management Community can benefit.

[2] YOUR OWN PERSONAL STORY - how you became interested in Asset Management

You will find this an interesting exercise in reflection. It is fun - and your story will be invaluable as an input into the story of Asset Management itself. Have a look at these examples.

Personal Stories #1-3



David Hope

I first became seriously interested in asset management when I was working as the CFO of the City of Marion in the early 1990's. The issuing of an accounting standard requiring local governments to adopt accrual accounting alerted me to the need to start getting together information on the Council's assets to ensure that the balance sheet would correctly reflect the Council's asset base. This raised issues of valuation, asset life and residual value but most importantly, what assets did we own? I thought that I would start with an easy category – land. Given the nature of the Torrens title system I did not envisage any problems with easily reconciling our records with the Land Titles Office. But I was wrong! There was land that we thought was ours, but turned out to belong to others. And there were pieces of land that were ours, but we had no record of them! Many of these land parcels in transition related to roads and it was clear to me that there was a distinct need for close cooperation with the Engineering Department to ensure that all our assets were recognised and valued. The Engineering Department also started to recognise the need to improve its records of the Council assets and this led to a working liaison with the local TAFE college to record all of the Council's infrastructures assets. It also led to a recognition that appropriate software and hardware needed to be acquired to facilitate the recording and management of all assets – a budget request I supported keenly.

To some extent my recognition of the need for decisive action on asset management was influenced by work I had been involved in when working in the Northern Territory in the early 1970's. I was providing administrative support to the Electrical Mechanical Engineer in the Department of Works office in Alice Springs. One of our concerns was the need to develop better planning and budgeting in relation to the electrical and mechanical systems we were responsible for maintaining. A major part of the problem was our lack of knowledge about the assets we were required to maintain. So we conducted an asset survey and I visited most of the outlying areas collecting information on assets.

David is now an Asset Management Consultant in Australia with his own company, Skilmar Systems.



Prof Gordon Sparks

My first introduction to asset management came as part of a project with the Canadian Strategic Highway Research Program (C-SHRP) in the late 1980's early 1990's. C-SHRP was a cooperative research project involving all the Highways Departments in Canada. Looking back, C-SHRP was a "Science Expedition" in the sense that it was directed at how to get a better bang for the buck in pavements through the application of better science and technology.

As part of this multi – year, national, cooperative project, I travelled to Australia to find out what Highway Agencies in Australia were doing. One part of this trip involved a visit to the Roads & Traffic Authority (RTA) of New South Wales head office in Sydney, Australia. It was here I first met Ray Gerke who was leading the Asset Control Technology Group within the RTA and was introduced for the first time to the concepts and principles of asset management. It was clearly a “wake-up” call as I recall realizing for the first time that there were two ways to get a better bang for the buck in pavement, – namely – via better science and technology or via better management.

Clearly the better management approach offered very significant potential benefits that we in Canada had not even recognized as being possible. I returned to Canada and reported back to Greg Williams who was Directing the C-SHRP initiative, who in turn brought my findings to the attention of the C-SHRP management committee. C-SHRP in those days did “Briefing Tours” where we would travel to each of the 10 provinces and do one-day presentation on the results of the C-SHRP projects. I

suggested to Greg, who then took the suggestion to the CSHRP Management Committee that we try to make arrangement whereby Ray Gerke could join us on the next “Briefing Tour” and provide an overview on this thing called “asset management”. These arrangements were made and Ray introduced asset management to Canada on a cross - Canada “Briefing Tour” in 1992. The discussions etc during this tour lead to an asset management pilot project with Saskatchewan Highways championed by then Deputy Minister, Clare Kirkland as well as another asset management pilot project with the City of Saskatoon championed by then Director of Public Works, Jan-Mark Gustafson. This was the birth of asset management in Canada!

Gordon is Professor of Civil Engineering at the University of Saskatoon in Canada and Principle of Vemax, an asset management consultancy.



Dr Ralph Godau

In 1990 I was working in a large corporatised gas utility and had constructed their asset register (1983) and a works management system (1987) when ‘asset management’ as a concept, first took a mental hold. It was when I came across “Pipeline Assets: Life Cycle Management and Economic Life” by Dr. Roger Vass & his team and the telling statement “In managing assets there are two key objectives, firstly to minimise the overall cost to the community of creating, maintaining and replacing the assets, and secondly to achieve inter-generation equity through planned approach to the eventual replacement of the assets. Formulation and selection of strategies to achieve these sometimes conflicting objectives requires consideration of many issues, including the risk of service failures, the associated environmental and community impacts, and the timing and concentration of demand for funding and other resources.” I saw this as significant and very relevant to the work I was doing in the gas distribution area.

To extend my skills I moved into academia (teaching and research into infrastructure management), then to the gas regulatory environment (influencing private utilities to undertake asset management). I am now in local government (reinventing asset management in a more complex, multi-service and political environment). I have

always had passion, and somewhere along the way I always felt asset management best represented what I wanted to do.

Looking back I can see a number of events that triggered changes in the way I thought. As a young engineer, a senior foreman noticing I was bogged down in paperwork told me “One day you will be in a high management position making decisions that affect the way we do our work, so you need to spend at least 50% of your time in the field to understand the impact of those decision. I don’t want you to make the same mistakes”. As I spent more time in the field I realized that there was a lot in management that I wanted to change.

Later, I ran and developed an in-house gas industry practice course. Bringing together different disciplines and trying to understand the activities and relationships involved in running a major gas utility, I gained valuable insights into how the organization was run and importantly, who was making the decisions and why (e.g. learnt a lot about internal politics, people’s view of the world, barriers to change, level of expertise, etc).

Ralph is Manager, Transport & Major Projects, City Works & Development, Moonee Valley City Council, Victoria, Australia. Ralph wrote his PhD thesis on decisions in the technical management of Infrastructure.



WHAT’S YOUR STORY?

History is made by individuals, either working within organisations or just as themselves.

I asked each of the Asset Managers above, to tell me **WHEN** they first became interested in Asset Management, **WHAT** role they had at the time, **WHAT** piqued their interest, **WHAT** they did about it, and **WHAT** (if relevant) in their past experience they thought might have contributed to their being open to new ideas when they were. The format is as follows:

“In **[YEAR]** I was **[ROLE]** in [company name optional] when **[TRIGGERING EVENT]** and I **[SAY WHATEVER IT WAS YOU DID ABOUT IT]**. Looking back, I can see that some prior experience may have conditioned me to take notice when I did. **[PAST RELEVANT EXPERIENCES]**” Word Limit **between 350-400 words**

That’s it! Just tell an interesting story! But remember to include DATES! This is very important for it enables us to construct a time line - and to follow up on important AM events.

BE PART OF HISTORY! Send your story to me at info@amqi.com

Or to talk to me ring 08 8359 0559