

## *Chapter 10 Architects, Audit and the Rise of Accounting*

As I moved onto attacking the *6th Question - how to reach out and extend support for asset management*, I hit on a basic truth, namely that it is not difficult selling an idea to someone for whom it can be seen as a clear advantage. The engineers in the water authority came to see it that way, so did the members of the Public Accounts Committee and, eventually, all of the infrastructure agencies involved in the study. Now my question was would the main discipline in my new department - the Architects - also see it as a positive?

### **Architects**

Our architects were looking for something that would give them an edge and, in effect, raise their profile in the public service. But would they see asset management in that light?

Early experience in the department had suggested that this was unlikely. While there were some exceptions, most departmental architects saw asset management as a constraint on their creativity, rather than as an opportunity.

### **Design Accountability**

One day, as I passed by a design on an architect's easel, I thought I recognised what he was doing. Normally I had difficulty visualising the finished effect from an architectural layout so, feeling rather pleased with myself, I turned to my architect companion to check. "Is that a school with a flat roof and box gutter?" He looked concerned and promptly whisked me off the floor. He probably thought I was about to query it, and I was. This was a design that regularly caused damage when applied to school buildings, for the school would surround the building with trees and the leaves would fill the gutters causing flooding. This costly problem was well known so why was it still permitted?

On another occasion, I was looking at a school building design where the architect had, as an aesthetic feature, bricked in the downpipes. I assumed he would have thought about the need to replace rusted out downpipes at some future time and have made provision for it, but I couldn't see how, so, puzzled, I asked him. Indignantly, he replied that as this was his 'architectural concept' I could not possibly comment!

Architects would often specify non-standard sizes just for variety. This reached ridiculous levels - and provoked much hilarity - when it was found that the steel plating in the new police building's urinals had been specified at three times the standard thickness! I explained that non-standard sizes considerably increased renewal time and costs, but they did not regard provision for renewal as their responsibility.

Yet, as is well known today, it is at the design stage that future maintenance and renewal problems are set. In each case I asked myself 'where is design accountability?'

I could see considerable initial and renewal savings from the use of modular buildings for schools. Variety could be achieved by arranging the modules in different ways, but standardizing would greatly ease renewal. However, as with the water authority, the department considered that one of its main responsibilities was providing work for their professionals, so the modular idea did not gain much traction.

This was not the only occasion where economics came in last. Seeing that we had many maintenance call outs after hours, I designed a system to reduce the need for after hours work - and was promptly told that, without the penalty rates, the men would be hard pressed to survive!

### **Service Function**

It was not only economics that was out of favour. Service function was not high on the agenda either. I had suggested that we could visit recently designed buildings, along with the architect, to find out from those who were inhabiting the building as well as those who were maintaining it, what they particularly liked about the building and what might be causing them problems, so we could learn what could be incorporated in future designs. Only one architect was willing!

Would the situation be different in other states? One rainy day, I was in Darling Harbour, Sydney, addressing an accounting congress in a brand new building. All along the stairs were pots and catchalls to cope with the leaking roof so, at lunch that day with the Chief Public Service Architect in Sydney, I could not resist teasing him about the inability of architects to design roofs that didn't leak. He professed unconcern.

"Not our problem", he responded airily, "That's construction's".

"Not your responsibility to design functional buildings? Then what is your role?"

"We design works of art!"

When asked how many non-functional works of art we could afford, he simply agreed it was a good question; but it was clear he did not think it a question for him - as an architect.

### **Life Cycle Analysis**

However, not all was lost! Although I was consciously looking for it, I could frequently be surprised by what first seized the imagination and created an interest in asset management. For example, when he was introduced to life cycle costing models and components with different economic lives, our Chief Architect, Peter Sharpe, was intrigued by the possibility of the shorter component lives being used as a defence against design liability. Until then buildings had been seen to 'last forever' and any failure was considered the fault of the designer.

With his interest thus aroused, we put together a sample of recent building designs - all award winners - and ran an afternoon seminar for his architects in which we looked at the buildings with an 'asset management' eye. One was particularly interesting as it had won its award for being 'low maintenance'. It was a strictly functional design but to lighten the effect, a decorative balcony had been added to the top story. This balcony was made of painted wood. When it came time to repaint, it was found that there was no natural access to the balcony from inside the building since it had not been built for use and was for decoration only. So the options were either to erect scaffolding, or to remove some of the roofing and enter from over the top. Neither were low maintenance solutions.

Another in our collection of learning stories was a college for woodworking. The college was located in a heavily wooded area and the designer had chosen to decorate the facade with alternate panels of local woods interspersed, the better to display them, by white painted panels. The effect was quite splendid - to begin with! But the wooded location, of course, was damp and it was not long before the painted panels needed a repaint. To

protect the strips of local woods, this repaint could not be done with a spray gun, each panel needed to be hand painted and cut in, a slow and expensive job, especially when carried out on a scaffold. The college could not afford it and within a few years what had been a very clever notion looked sad and decrepit.

After this, we spoke frequently about designing for maintenance and renewal and we realised that this would only be done if the client recognised its value. However, it suddenly hit us that that our department was, in fact, the client for many public buildings and we could use our own design briefs to build in a requirement for taking life cycle analysis into account. One day, the team proudly showed me that they had actually put out such a brief. But life cycle analysis was as new to the private sector architect as it was to our in-house staff. They had no clue what was required of them, and I have to admit that it was not a well specified requirement in the brief: there was no guide as to how these new requirements should be interpreted.

### **An opportunity missed, and maybe still missing**

When the architects who wanted to tender came to me to explain to them what was needed, I told them that this was their opportunity to demonstrate how their design enabled greater longevity and reduced maintenance. They could think about this when choosing design and fabrics and construction techniques. This, however, seemed to them far too difficult and they sought a second opinion. Afterwards, I cursed myself for not anticipating this reaction, for it was obvious to whom they would turn, and I knew that had I discussed the issue with him beforehand, we would have given the same advice.

They went to Professor Frank Bromilow, Head of the Architectural Department at the University of Melbourne. It was Frank, along with Lex Blaikie, the head of the engineering and construction division of the CSIRO in Melbourne, who had invited me to Melbourne over a year before to look at the work they were doing and talk about asset management. Limited access to information had led them to focusing on actual maintenance and renewal carried out on a selection of school buildings. Yet when they saw what the Public Accounts Committee had done, they were quick to recognise the wider opportunities of life cycle concepts. So I knew that both would have been delighted at the idea of encouraging better building design and promoting durability and maintainability through the choice of fabrics, techniques and design, using life cycle analysis.

But 'if wishes were horses, all beggars would ride'! In the event, I didn't speak with Frank early enough and he suggested to his questioning architects that all they needed to do was to spell out the renewal cycle for the components in their design. Which is what they did. After this, I suggested to the team that we avoid building in a requirement for life cycle analysis in future briefs until such time as I could draft a set of decent guidelines for how this was to be interpreted. Before I could so, however, I took up a new position in Tasmania.

It was to be almost two decades till I returned to this subject again when Charles Nelson asked me to contribute a section on asset management for the first edition of his book 'Quality in Architecture' (2006) and I wrote a section on 'Quality that lasts'. I later wrote an updated section for his second edition in 2017.

Charles' introduction to my section in 2017 shows that, at least to his mind, a closer integration of asset management with architecture was still out in the future somewhere.

He wrote:

‘Unlike FM [facilities management], the idea of having a role in asset management is foreign to most design professionals. In asking Dr Penny Burns, a founder of AMQ International, to prepare a paper for this book, I hope to extend readers' imaginations past FM, out into the mindsets of those who ultimately create our projects. This represents a further, possibly ultimate ‘alignment’ of the quality of the design focus with our end users’ needs. p.337

Architects are quite clever enough to do this, but there needs to be an incentive.

Full versions of both papers, which provide a guide - and a reason - for employing asset management in architectural design, can be found on the Talking Infrastructure website.

### **Audit and Accrual Accounting**

Architects, of course, were not the only discipline to find themselves with a new role in Asset Management. There were the Auditors-General and their staffs who I had viewed as kindred spirits after meeting with them at the National Accountants in Government conference in Perth. We met many times and talked about audit and about the introduction of accrual accounting and gradually they grew to admit its value in revenue raising agencies, but still they resisted its introduction in budget dependent agencies such as Education and I didn't understand why.

Even where the problem of cash accounting was clearly recognised, there was a reluctance to press for adoption of accrual accounting. For example, Richard Humphry, the Victorian Auditor General, had used his keynote lecture at the February 1987 National Accountants in Government conference, to outline these problems and to query why Government should require accrual accounting from the private sector yet prevent it in the public sector, but he stopped short of recommending adoption.

This was despite an obvious interest, for in just the previous year, the Public Sector Accounting Standards Board (PSASB), of which Richard was the Chair, had especially arranged for a board meeting to be held in Adelaide to give them the opportunity to speak with the PAC, because it was known to be in favour of accrual accounting in the public sector.

Unfortunately for the PSASB, the South Australian Premier called a snap election and the PAC members were out in their electorates when the board members arrived. It did, however, give the staff an opportunity to press the case with them for accrual accounting and it was well received. Still, they resisted, often presenting philosophical reasons that were so easy to knock down that I wondered why they bothered. They were, after all, intelligent and well-intentioned officers.

I continued to be puzzled by their nervousness till, one day, light dawned! I was addressing a packed audience of public sector accountants, explaining to them why ‘tennis tea club’ accounting (a.k.a cash accounting) was not appropriate for managing billions of dollars of infrastructure, and a young man asked whether this meant he had to learn a new accounting system. I innocently replied, assuming that all public sector accountants had taken an accountancy degree, “No, you just have to remember what you were taught”.

Ah, the danger of assumptions! It was then pointed out to me that the title 'accountant' did not, in the public sector, necessarily imply an academic qualification and most accountants did not have it, but had learnt their cash accounting practices 'on the job'.

So, at last I understood. The question was not one of principle but rather of practicality. How were we to educate thousands of public service officers to effect the changeover?

### **Addressing practicalities**

Interest in accrual accounting - at least in principle - was continuing to mount so it was time to take action on the practicalities. In conversation with the President of the Accounting Society in Adelaide (I was President of the Economics Society at that time), we decided that we could run a joint seminar focusing on how to make the transition from cash to accrual. He offered to manage the logistics, for which I was grateful, if I would arrange the speakers.

Richard Humphry and Graham Carpenter both readily agreed to speak. By this time, late 1988, Richard was no longer Victorian AG but the Head of NSW Premiers Department, reporting to Premier Nick Greiner, and Graham, as well as being Comptroller-General in Victoria, had picked up Richard's role of Chair of the Public Sector Accounting Standards Board (PSASB), which meant we had high level support.

The title of our one day seminar, "Managers and Accounting Information: Making managers accountable and information relevant" expressed concisely what the issues were and it had just three sessions: "What is wanted"; "What the public wants" and "It can be done". For the latter we were able to source two excellent practitioners who had actually achieved such a changeover within an individual agency, so we were able to use this as a basis for scaling up. It took about six months to organise and was held in April 1989. As an indication of the increasing acceptability of the idea of accrual accounting, we had no difficulty in securing high level public sector speakers and attendees.

(As an aside, New Zealand's Treasury Representative, Ian Ball, had started doing seminars on accrual accounting around the Treasuries in Australia as early as 1983 and the Public Finance Act of NZ, which introduced accrual accounting to the NZ public sector was passed in March 1989, thus pre-dating its introduction in Australia. However, in the NZ case, this was not related to asset management but rather to their interest in corporatising all their revenue-raising departments. Asset management was taken up in NZ at the local government level only in 1993, and at the central level much later.)

### **Fund Accounting**

At this time, the late 1980s, local government (in Australia as well as overseas) used fund accounting. In essence, different tasks were allocated a bucket of money and councils reported on this. Also, and equally important, revenue inflows were assigned to particular buckets. This had been the subject of criticism by the Auditors-General and leading accountants for some time. The Australian Accounting Research Foundation's (AARF) Discussion Paper 12 'Financial Reporting by Local Governments', 1988, a major document in the move to accrual accounting, argues that 'Essentially it [Fund Accounting] reflects the influence of non-accountants. Over the centuries, politicians, lawyers, and bureaucrats have figured prominently in its evolution. For them legal compliance and accountability were the main considerations... What has emerged is more a system of public financial

administration, rather than a system of government accounting which discloses in meaningful form the financial performance and position of the executive as a collective entity..." (p. 23)

The accountants were right to be dismissive of Fund Accounting. I have already observed how many decisions were made in an ad hoc fashion by bureaucrats, for example in determining sinking funds and debt repayment practices in the Engineering and Water Supply Department. While hypothecation, a fund approach, was used for allocating motor vehicle licensing revenue to road expenditure at the state level, fund accounting was much more extensive at local government level.

Until I moved to Tasmania, my work had been entirely at the state government level and I had had little connection with local government. I first became aware of the fund accounting practice only some years later. I was in America for an American Public Works Association Conference and speaking with a council maintenance manager. Knowing that American councils were much bigger than those in Australia and wanting to get a rough idea of the difference I had asked him what his maintenance budget was. Puzzled, he had started to count on his fingers. As he added the large number of different buckets he looked more and more amazed. It was clear that he had previously had no idea of the size of his overall maintenance responsibilities, and equally no opportunity to optimise them.

Fund accounting belonged to the era of 'stewardship' and in the late 1980s we were starting to move into the new era of 'management'. Stewardship began to be scorned as the practice of the servant who, in the biblical parable of the three talents, buried his gift in the soil rather than using it to improve and grow in richness. Asset management, on the contrary, was directed towards management and active efforts to enhance portfolios.

As asset management grew, so did the need for a better accounting system than fund accounting. Asset management at this time was heavily promoting the use of accrual accounting which was necessary if assets were to be financially recognised.

With the decline in fund accounting, where decisions were made by politicians, treasury economists and regulators, and the move to accrual accounting, the role and importance of financial accountants rose. Financial management moved from the Treasury to the accounting profession. I supported this for we needed accrual accounting for asset management. Initially I had thought that the requirements of accountants and asset managers were aligned, and to some extent they were. It was not until the move was well underway that I began to recognise the areas where we differed in intent, and the difficulties that this was to present.

### **Accrual Accounting - A change of attitude**

In 1985 I had conducted a straw poll when the National Accountants in Government Conference was held in Adelaide. I asked the sixty or so delegates that I spoke with what they considered to be the likelihood of accrual accounting being adopted in government. Their responses very much reflected the general tenor of presentations at that conference, where accrual accounting was considered a theoretical 'maybe', in that they did not see it happening in the near term, if at all. And yet, just a few years later we were to see a decided change. This is perhaps best illustrated by the following two accounting events both of which were inextricably linked with the rise of asset management.

New York City, you will remember, had been the first to experience the problems of ageing assets back in 1975 and had struggled with the fallout for ten years. The city is the largest in New York State which, under the governance of Edward V Regan decided to move to accrual accounting in 1985.

In November 1987, the Governor and his Advisor on Accrual Accounting were invited to Melbourne by the Australian Society of Accountants to address a special briefing session on Accrual Accounting. The Governor had wished to get the change over done in under two years so that it would occur in his first term. It was successful and he was re-elected.

The Governor and his advisor from the consulting firm of Arthur Andersen & Co spoke of the positive *political* advantages of accrual accounting which I thought sensible as many in the audience were members of parliament. However I doubt the message got through for when I asked the two politicians seated next to me whether they would consider running on an accrual accounting ticket, the answer was a very definite “Not bloody likely!”

The two speakers had placed the focus of their work on accrual accounting at the consolidated state level which enabled them to show both the assets and the liabilities of the state. Previously the debt borrowings of the state had received maximum media coverage but the assets that these debts funded had not been recorded. So the consolidated state balance sheets were very useful for presenting a more balanced account of government activities.

It was also at this time that Graham Carpenter, Comptroller-General in Victoria, showed me the consolidated state balance sheet that he had compiled for Victoria, explaining that the Government was often criticised for the extent of its liabilities but that the public, and the media, did not understand the great extent of assets that were also held. He wanted to make this evident.

His balance sheet included parks and gardens and heritage buildings, assets which are enormously difficult to objectively value which explained his first question of me which had been “How do we value the statues in the park?” I had not been thinking of the press relations value of consolidated state balance sheets at that time, but rather of the needs of management, and had responded. “My Goodness! Why do you want to start there?”

While I could understand his reasoning, I was extremely concerned at the inclusion of assets which could be so easily manipulated to show the State in a good light no matter what its management, or borrowing practices, were like.

### **Accrual Accounting and Revealed Liabilities**

Hard on the heels of this conference, a few months later, in February 1988, Nick Greiner, the newly appointed Premier of New South Wales, organised his own accrual accounting session, this one in Parliament House, Sydney. He had made it clear to all that he intended to run NSW as a ‘big business’ and so was looking to the accounting processes used by the private sector. All Parliamentarians were expected to attend. The Auditors-General and their staffs from around the country were also invited. And me!

I was delighted, but surprised. When I asked how I had scored an invitation, the organisers said - in tones of some frustration that suggested they had had considerable difficulty in getting all the parliamentarians to attend - “You’re the only one who is really interested in all of this stuff!”

This session differed from that run by the Accounting Society in Melbourne in that the focus here was on accrual accounting specifically for management, using accrual accounting so as to compare public sector management performance with that of the private sector.

My interest was in the ability of accrual accounting to make the full costs of public activities visible. But this interest was not necessarily shared by everybody at the session.

In the afternoon, the audience was being addressed by an academic accountant on the pros and cons of accrual accounting and I noticed growing restlessness amongst a group of politicians at the front of the room. Eventually one of the group spoke up.

“But if we reveal accrued liabilities, we will be forced to do something about them”.

“Not at all”, responded the academic, Bob Wallker, smoothly and rather disingenuously.

“Accrual accounting merely presents information. What you do with it is up to you”.

This was too much for the original speaker who jumped to his feet and shouted: “You are just like Pontius Pilate, washing your hands of the whole affair” and he was met by noisy acclaim from his neighbours.

Of course, both the academic and the politician had some right on their side. Accounting systems provide information that enables but does not enforce action. On the other hand, awareness of information can be a propelling force to action - it is the reverse of the old ‘ignorance is bliss’ argument. If no one knows that something needs to be done, then you cannot be blamed for not doing it. Once the facts are in the public domain, however, they are difficult to ignore. Which, of course, was why asset managers wanted the information.

There was also resistance to its implementation on the part of Treasury whose head, Percy Allen, claimed he was far too busy attending to a range of activities - which he listed - to take on accrual accounting. I was disgusted, for none of the items he mentioned, or their totality, came anywhere near the importance for the state to the value of adopting accrual accounting and thus understanding the full financial costs of public actions.

Fortunately he was over-ruled by the Premier.

### **Accrual Accounting - “It’s not Asset Management!”**

The major advantage of accrual accounting for asset management was that it recognised assets. Cash accounting did not do this. Moreover, in recognising assets, it also recognised the full costs of capital, that is it recognised the estimated cost of annual asset consumption (ie depreciation). Again cash accounting did not do this and, from a budgeting and intergenerational revenue raising perspective, this is more important than simply knowing asset value.

It was not only politicians who resisted this latter disclosure, many practitioners also did. They were happy enough to recognise the value and extent of the assets for which they were responsible, but not so happy to have to recognise - and then cope with - the full capital costs. As we had noted in Chapter 5, many chose to believe that costs not made visible, were not even incurred.

A common view amongst local and state government engineers was that the valuation and depreciation of assets was all ‘accounting paper work’ and had no relevance for the ‘real’ work of maintenance and renewal. A natural extension was to deny that depreciation, which represented the gradual wearing out and obsolescence of assets over time but was not actually paid out while it occurred, was not a cost at all, but rather a piece of accounting chicanery. This view has not entirely disappeared.



Explaining accrual accounting and its relationship to asset management was thus not an easy task. It was a task, however, taken up with alacrity by John Comrie who was highly influential in the development of both accrual accounting and asset management in local government, and still is. An economist and an accountant, John was with the Engineering & Water Supply Department, South Australia when it was developing the asset management prototype. He was then appointed to a committee set up to implement accrual accounting in the local government sector nationally.

He and colleagues recognised that many assets were long-lived and, in order to determine costs and to charge users on an intergenerationally equitable basis, they needed reliable estimates of asset replacement costs, useful lives and annual asset consumption. Most of John's work was in local government, a sector which is highly asset intensive.

John was actively involved in the development and implementation of the first accrual accounting standard, Australian Accounting Standard AAS27, and has subsequently been a leader in Australia in local government financial governance and management. He was also responsible for the initiation and development of the local government financial sustainability improvement related legislative reforms. These were introduced in South Australia in the early 2000's and were a prime basis of subsequent similar reforms in other Australian states. They included requiring councils to prepare asset management plans and long-term financial plans. It was thus natural that he would join forces with John Howard, chief engineer at Devonport City Council, another very early innovator, who was working towards the same objectives at the same time and whom we will meet shortly in Part Four.

John notes that he always needed to tell his audiences that 'accrual accounting is not asset management' and, indeed it is not. Accrual accounting is a financial management tool. Asset management is a physical asset management tool. They are related, and there are overlaps. There are also conflicts.

With the decline of fund accounting and the rise of accrual accounting, the accounting profession rose in dominance and as they were responsible for the information included in the balance sheets, their need to report externally, rather than the asset managers' needs to manage internally, took precedence and these conflict grew.

This became most evident in the context of understanding asset recognition, valuation and depreciation that we will look at in Part 4.

In conclusion, while Accounting has grown, and continues to grow, in importance, Architects have yet to take the critical active role that could, with other designers, see the next improvement in asset management