

Part 1 – Probing Max's Background –

This paper is a slightly updated version of a Feature Interview published on line by PMWorld Today in October and November 2007.

David Pells, Managing Editor of *PM World Today* conducted the following interview over several months in the fall of 2007. The questions and answers are divided into three parts: This Part 1 – *Probing Max's Background*; Part 2 will discuss *Activities with the Project Management Institute*; and Part 3 will answer *Questions on Project Management Practice*.

In this Part 1, PMWT's questions cover:

- Project Management
- Construction Management
- Heavy Construction, and
- Project Manager

Project Management

PMWT: Max, how did you first get interested in "project management", and when did it happen?

Max: I suspect that the seeds for project management were sewn long, long ago when my father first admonished me for never ever finishing some "project" or other that I had started. Consequently, my bedroom was strewn with things like unfinished Meccano models, half carved wooden boats, copy-printing jellies that didn't quite set (and that was in the days of carbon copying), and the like. So, when I did manage to get my first "project" finished, an elaborate treadle car for an eight-year-old, there was an enormous sense of satisfaction.

Of course, it was not until years later that the issue of "process" became paramount. That was when I was practicing in the field on construction projects. It seemed to me that there must be some logical sequence, but that a lot of people had difficulty in getting it right, with resulting chaos, mayhem and wasted effort. Still later I was involved in preparing legal contracts for construction work. That's when I discovered it takes a special kind of lawyer to understand the construction process, preferably a person who had first taken an engineering degree before migrating into law.

In struggling with conflicts and claims under construction contracts I came to realize that most of the problems were generated by flawed concepts or plans. In other words, a lot had already gone on, long before construction was started. Even today, a lot of people do not recognize a project until production work actually starts. But that drove me "upstream" so to speak with the question: "When does a project really start?" and "What is the ideal generic model?" – and that's where we are today.

Construction Management

PMWT: You mentioned construction projects? How did you first get involved in construction? Are you a civil engineer? Did you study construction management in school? How did your professional work with construction projects begin? And when was that?

Max: Yes, I am a professional civil engineer, and a Fellow of the oldest professional association, the Institution of Civil Engineers in the UK. That's what FICE stands for. While we are at it, FCSCE stands for Fellow of the Canadian Society of Civil Engineers and FEIC stands for Fellow of the Engineering

Institute of Canada.

I knew that I wanted to be a civil engineer ever since my first project – digging a hole in the sandy seashore and watching it fill with water from a rivulet issuing from further up the beach. That was at about the age of five. Since then, I've dug a lot of holes and filled them with a lot of things like sewage plants, railway lines, water and ships, as well as hospitals and tall buildings. Now I have reached the age of "discernment" where I just fill pages with text.

No, I didn't study construction management. In my day, there was no such thing. Construction management, by the way, is not project management of construction projects. Project management of construction projects is management of the administration of said projects. Construction management is management of construction technology, two very different things that are often confused. The same difference is even more confused in industries such as Information Technology ("IT").

My career in the real world of construction started when I decided that actually digging holes was more lucrative and challenging than just drawing them on paper. It was a shock believe me, and things like shoveling concrete was really hard work – and I've done lots of that in an emergency. I should have been a carpenter; it's not so messy and less fatiguing.

I remember the first day I saw steel reinforcement. In those days reinforcement was made of mild steel in smooth round bars and had hooks on the end so they did not slip out of the concrete. I had no idea what they were for, nor how to design the hooks – they didn't teach us that in university. So much for university education!

Yes, I have actually designed structures. I had to, to qualify as a "professional". I designed a flat top weir for measuring flow in a river in the heart of a jungle in Africa. The river was normally full of dust during the "dry" season. Came the first "wet" season storm, and it was so intense that it lifted up the whole weir and deposited it about half a mile down stream. But please don't tell anybody. Because, fortunately by that time my application for membership had been approved.

From then on I decided to return home and become a "Resident Engineer" and watch other people make mistakes. When was that? Oh, over half a century ago.

Heavy Construction

PMWT: What was your most memorable project? Why, and what role did you play?

Max: Well this really is a dip into the archives and a trip down memory lane! I've had lots of "memorable" projects, but the following is perhaps the most memorable – and not just because it was the basis for my recognition as a Fellow of the great UK Institution of Civil Engineers. The project was a construction contract for the reconstruction of the western lock entrance to the Royal Victoria Docks in the 1960s. First as deputy and then as Agent ("Construction Manager" in today's parlance), I was responsible for what was then described in the Contract Journal of the day (10/13/66, p755) as a "heavy, dirty and often exasperating £1.5 million contract by John Mowlem and Co. Ltd." The Royal docks are situated in the heart of East London, or at least they were until converted to commercial and residential use in recent decades.

Of course, £1.5 million was a lot of money in those days and, like today's projects, not nearly enough.

But aside from the technical challenges there were a lot of other exciting goings on like strikes, unofficial walkouts, break-ins and constant labor bargaining with a labor force recruited from one of the toughest areas of London. And all of that is to say nothing of being rammed and shot at with a sawn-off shot gun while transporting the weekly payroll from the local bank to the pay office on the site. The thieves, who were never caught, did not get the money but my car was a total wreck.

But enough of that – some pictures tell a better story.



Figure 1: View of long-abandoned Western Entrance to RV docks prior to start of contract



Figure 2: Work gets under way with heavy lift derricks and heavy piling rigs

Figure 3 shows that the lock has been "dewatered", and the sides of the old lock walls are being supported by temporary concrete "struts". In the foreground is a large form being prepared for the first concrete pour to the new lock sidewalls. The form is 22 feet tall and the concrete will be poured all in one "lift". The form needs to be very strong, as it will be supported in only two places – at the top and bottom. This is one of several innovations for which I was responsible.



Figure 3: The dewatered lock and support to the aging walls

Figure 4 shows the 10-ton form being lifted into position and, when in place and secured, will enable the wall to be cast in a single continuous 18ft deep pour. Quite an innovation in those days of "5 ft. lifts".



Figure 4: Lifting the "Big Form" into place.

Figure 5 shows excavation of the lock floor to a new lower depth below the temporary shoring is well under way.



Figure 5: Excavation for the new lock floor well under way

Figure 6 shows precast concrete lock gate hinge receptacle units being lowered into position. This approx. 11' 6" long unit weight about 5 tons, required in-place accuracy of internal curved surface 20 +/- 1/32 inch and was another innovation I introduced. The total height of the gate quoin will be 38 ft when completed.



Figure 6: Lifting a precast concrete quoin unit into place

Figure 7 shows the lifting of the first of the 120-ton lock gates into position at high tide. This was a delicate high-tide time-constrained activity and a great relief when both leaves were in place. You

cannot argue with Mother Nature!



Figure 7: Lifting the 120-ton lock gate leaf into position.

It was also a great relief when we saw that the gates fitted *and* were watertight, see Figure 8!



Figure 8: Finished lock filled to brim and under test.

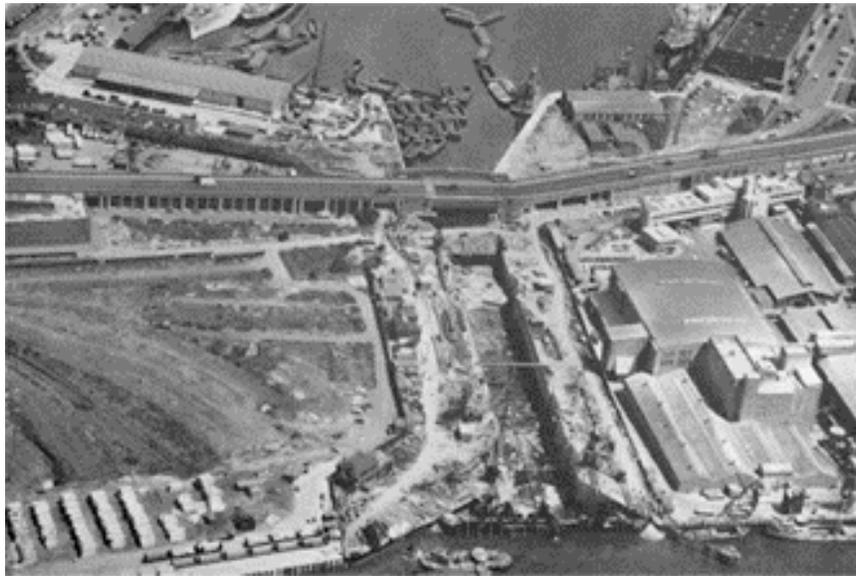


Figure 9: Aerial view of site at high tide in the river Thames during the peak construction period

The old entrance was originally opened in 1853 and closed in 1957 when the condition of the walls and gates were considered to be unsafe. The reconstruction took a total of four and a half years and was completed in 1967. However, within a decade or so the whole of the Royal Victoria docks system was abandoned and the entrance permanent closed. All cargo activities were transferred to Tilbury, many miles down stream, and the whole of the dock area turned over to real estate development.

The planning, engineering and execution was a great success but, in the event, the same could hardly be said of the economic foresight resulting from a rapidly changing transportation technology and shifting economic environment.

Project Manager

PMWT: When did you come into contact with the term "Project Manager"? When did you first get interested in project management, and how did that happen?

Max: Surprisingly, this question is a little more difficult to answer. It was an evolutionary process rather than an inspiration. When I first became involved in construction, in the UK, there was no such position as "project manager". The label "manager" was reserved only for people who managed people, mostly in the business world. Today, everybody and his uncle seems to have the label manager, but that doesn't necessarily mean they are in charge of other people or indeed have anyone to help them. They may just be a manager of *things*. I always wanted to be in charge of people and then along came the matrix organization where everybody is in charge of everybody, so that is not much of an improvement. You have to go and *ask!*

However, back on the construction site, when you rise to the top, in the UK you don't become a manager where I first practiced, you become an *Agent* or a *Resident Engineer* – depending on which side of the construction contract fence you're on. So, I've been both of those on large and difficult projects. By difficult, I mean both technically challenging and working with a difficult work force.

When I first came to Canada, the pinnacle of construction site responsibility was to become a "Project

Engineer", although the person who was really in charge was the site Superintendent. It was not until I scaled down to much smaller projects in non-construction fields that I had a chance to become a project manager!

So, becoming interested in project management followed a somewhat different path. As an owner's project director, I found it necessary to get involved in the legal aspects of contracting and soon discovered that in the standard construction contracts of the day, there was a woeful lack of "managers" of any sort to exercise leadership on behalf of the prime interest, the owner. It seemed that the project was either run by the consultant architects or engineers or, of course, the lawyers.

So, I drafted my own set of contracts, but it took weeks of negotiation to get them accepted by either the legal boys or potential contractors. Everyone wanted to maintain the status quo where they knew where they stood. To be fair, it is not an easy problem to introduce the authority of a project manager into the standard construction relationship. And even today it is difficult to get liability insurance as a project manager in the construction business unless you are a registered as a professional architect or engineer – they just don't trust those other "project management guys".

And maybe, just maybe, they have some justification when they look at all those "ins and outs" in the latest PMBOK document.

Coming next

In Part 2 of this *Feature Interview*, Max will answer questions about how he got involved with the Project Management Institute, how the West Coast BC Chapter of PMI got started, and Max's experience on the PMI Board of Directors then as PMI president and changes that he has seen in the PM world over the last 30 years.