## Death, Disaster and Destruction

by

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An address delivered at a meeting of the Medico-Legal Society at the Melbourne Club held on 12 May 2001.

The Chairman of the meeting was Dr. John Marum.

PROFESSOR JOHN CLEMENT. This is a picture of the Victorian Institute of Forensic Medicine or the Coronial Services Centre in Southbank where David Ranson and I both work under the directorship of Professor Stephen Cordner and I cannot think of a more impressive example of taxes at work. I'm very proud to work there and I think all Victorians and all Australians should be proud of what goes on in this Institute.

However, having gone from a building constructed in 1988, I want to talk about some events in Paris about a century ago because they really spawned the academic discipline of which I'm now a professor at the School of Dental Science in Melbourne. This slide is of a contemporary painting of the building when it was built 100 years ago or so and this is the building as it stands in Paris today. It is the Notre Dame de Consulation and the foundation stone of the building was laid a year to the day after a terrible tragedy in Paris. A high society Catholic charity bazaar was being held; the proceeds of this "bring and buy" went to the poor of Paris. This was a fairly elaborate affair and so they reconstructed a cityscape, a landscape, and a streetscape of ancient Paris. The building was erected about six months before the charity bazaar which took place on 4 May 1897. So the patrons of this were the high and mighty. This was before the First World War, before the old order was swept away. These were the aristocracy, many of whom had returned to France from exile in Britain after the Revolution and so on and this was a "posh do", a very "posh do."

When the building was being put up six months prior to the event someone said it would burn like matchwood. So this is more or less stage scenery. Canvas, oiled and lacquered canvas over a light wooden frame but there are stalls where people are selling things for the good of the poor; very elaborate, very fancy and very expensive goods on sale.

This slide shows the dress of the day and this was an event that was more or less a ladies' event. Ladies and their daughters attended and this was one of the attendees who entertained the assembled multitude of about 1,500 people during the opening ceremony on the day.

This is the cause of a terrible disaster. I actually don't agree with this, having said that. I think many disasters are seen in a very simplistic way. You know, who was it who dropped the match? Who was it who left the bow doors open on the ship? Who was it that did or didn't do something at that moment? It's very easy to ascribe blame and guilt to a single individual when really there is a systematic problem in place. I don't want to dwell on this but I think recent events at Ansett have

shown that the problems in this country of airworthiness are not the fault of a single person; they're a problem of an endemic structural and systematic cultural problem.

At the charity bazaar fire there was a cinema and in the cinema there was a projectionist lamp which was fuelled by ether. Halfway through a performance of a film the lamp went out. Not good news. A critical audience is there; an influential audience is there. And so there are hurried attempts to refill the lamp in the dark. Unsuccessful, they pull the curtains, the drapes, also unsuccessful. They tried pouring ether into a lamp and there are probably doctors and anaesthetists here and I've worked in operating theatres where we all know the hazards of ether. In the end somebody struck a match and, of course, the lamp went up, the spilled ether went up, the celluloid film went up and in ten minutes the whole of this pavilion went up with 1,500 people inside. At least 200 were killed and in appalling circumstances. And the press of the day had a field day and so there were stories about men behaving badly and there were stories about men behaving well. But, in general, men survived this conflagration better. They were bigger, they were stronger and they had less flammable clothing. But in ten minutes the building was reduced to this and then some soldiers were despatched to search the scene and recover the bodies and they didn't know what to do with the bodies. There was no mass disaster plan or counter-disaster plan in place and so they took off to a disused exhibition hall, the Palais de L'industrie which was right next to the Champs-Elysées in the centre of Paris but it was partially demolished. There was no light there; they were working by torches. It had a very, very cave-like atmosphere in which people had to work.

There were other problems and this slide shows three women, a mother and two daughters who died. They didn't die on the same day, they died from their injuries, and they succumbed to their injuries over a period of some days after the disaster. There was no proper triage in place so people were sent here, there and everywhere and being the aristocracy they were just taken home where they had the family physician and the family surgeon. And so no one knew who had been at the disaster really, nobody knew where the injured had been taken, people died at the scene and were unrecognisable and people died away from the scene and people didn't know. So there were secondary disasters to the primary event.

This slide shows the scene in the *Palais de L'Industrie*. Awful. The manufacturing of cheap and cheerful coffins, the next-of-kin fighting

through a multitude outside to get access to come and see whether their nearest and dearest were amongst the dead. There were harrowing stories - I could talk about this at length - of a father who vividly remembered his daughter buying a white chemise to go to the charity bazaar and at the last moment she changed her mind. He went to look at the bodies. He found the very badly burned body with a black chemise - "not my daughter" - went home and was told by his wife who had escaped that their daughter had changed her mind at the last moment. He goes back; another family had claimed the body.

The deceased were piled five high against the wall of an adjacent building, all burned and the roof had fallen in. Terrible, terrible pictures and an awful situation. They tried to identify the deceased by the jewellery they were wearing and this was unsuccessful. This is the Duchesse de Lanson who was closely related to the Emperor of the Austro-Hungarian Empire and she perished in the flames too. The highest and the mightiest of the old order died.

This lady was identified by her dental records. Paris was full of strange dentists. People with English names - this odontogram, as the Americans call it; this dental chart is written in English. There are plenty of English-speaking dentists, including American dentists, in Paris at the time. And the way things differed then from the way they are done now is that people were despatched to the family dentist to find a particular deceased person. In a mass disaster now, I would examine all the bodies and then try and apportion an identity to those we could. But in those days they sent Dr Burt - it was Dr Burt too - to identify only this lady. He wasn't interested in the identity of any other people and yet he examined 30 or 40 bodies *en route*. Not very efficient.

But in the aftermath of this disaster there was a Cuban dentist who had been trained in the United States called Oscar Onedo who was at the dental school in Paris and he thought this is an absolute breakthrough for dentistry. The richest people had the best dentistry because they could afford the worst disease. They had the best diet, plenty of honey and so on. About 100 years ago Oscar Onedo wrote the first thesis in forensic odontology and I'm Australia's first professor of forensic odontology 100 years later. There's a nice sort of symmetry to that.

So what are the lessons that should have been learned? The building was fundamentally unsafe; it was over-crowded with naïve attendees. There were unsafe workplace practices, such as you don't strike a match when you're pouring ether. The emergency exit routes were

insufficient. There were staff exits which the patrons didn't know about. Highly flammable and restrictive women's clothing. Triage problems. No counter-disaster plan. A very poor choice of temporary mortuary and a misplaced faith in the organiser of the event.

Again and again and again, if you read the transcripts after the event, people said "How could the Baron of so-and-so who organised all this, who presided over this, allow this to happen." They had faith in their masters and it was a misplaced faith. And then there was the fickleness of justice. The projectionist was sent to prison but the Baron who built this firetrap was given a little rap over the knuckles. But, from my point of view and from Oscar Onedo's point of view, the lesson to be learned was that dental records were important.

We can now go on to what I've done in the last 25 years or so. I have worked on a number of mass disasters, I've trained forensic dental people who have worked on mass disasters and I've been substantially involved in the debriefing of people from these mass disasters. You do not look at the world in quite the same way when you've done this kind of work. Here's a disaster that I didn't work on but in many ways it's a close parallel to what happened in Paris. This is the Bradford City Football Stadium disaster and here is a policeman with his tunic over his head because the radiant heat from the stand is so great. None of the policemen who were on duty on the day remained in the Police Force for very long. That was it as far as they were concerned. They didn't want any possibility of this happening to them again. Didn't care what they did; they weren't going to be policemen any more.

This was a case of one of the most horrifying videos I've ever scen. The TV footage of the football match is being played with a little clock in the corner and the radio transmission between the police is superimposed over the football commentary. I think there were 14 exits at the back of this stand, another old death trap, tar roof, tonnes of rubbish under the stands, just waiting to catch fire, and the police were convinced that these 14 turnstiles at the back of the building were unlocked and there wasn't that much of a risk to the people in the stand. In fact I think two of them were open and 12 of them were locked. And so, again, just as in Paris, the bodies were piled five high and the roof had melted and poured all over the top of them. Ghastly.

This is a train crash in the UK and I show this picture to people in emergency services because there are ambulances there, there's the fire brigade there, there's all sorts of people there. Nothing is happening. And that's because there is a human need to become involved and to

do something. You cannot stand by and just see this and not become involved. So the train is full of policemen who are trying to do - and do very badly - what the fire brigade were doing and the ambulances can't leave because there's a traffic jam because the policemen are not doing what they should be doing. And a similar event took place in Paris a century ago.

This is an air crash in San Diego. Typical of America, I have to say. I've lived in America for many months, off and on in my life. Everyone's in charge and no one's in charge. There is no securing of the scene. People are wandering through. They're picking up bits and pieces and moving stuff. One of the most important pieces of evidence to do with the investigation of this crash was found on someone's mantelpiece 18 months after the event. It was a memento.

This is the Lauda air crash in Thailand. No body bags because they never thought they'd need them. No helicopters to get the bodies out. The bodies are carried out like hunting trophies. Nowhere to store the bodies. They're outside in the sun, turning to soup. And then they're photographed and shown to anyone who wants to come and have a look. We have to prepare for this. It's no good being horrified by this.

There are real cultural differences between how people deal with the dead in different societies and if Qantas has the longest routes in the world and flies over countries that have different cultural understandings then we have to develop a way of engaging with this kind of business. If a disaster occurred at Tullamarine we would not put pictures of the bodies up in the foyer of the Victorian Institute of Forensic Medicine.

This slide is of the Sumatran equivalent of the Victorian Institute of Forensic Medicine. An old 1930s aircraft hanger, no running water at all, three pails of water, no fridge at all, no body storage facilities at all and 200 people were at the bottom of a nearby river. This is the mobile x-ray unit that the Indonesian military turned up with. It was for taking chest x-rays of army recruits and the floor had rusted out so you couldn't even do that.

This is an air crash in Abu Dhabi and, again, experience shows that when you get to a crash site you often think you're in the wrong place, it must be a long way away, there must be a big bit of the plane somewhere. That's not true. This was a crash site from here to Tullamarine, about 2 kilometres wide, the plane had turned to confetti, the luggage in the plane had turned to confetti, and the people in the plane had turned to confetti. Locals turned up, picked up everything of value and cleared off. The police turned up, picked up everything of