

Address of Ken Ramchand , Chairman of the Board of Governors at a Symposium entitled ‘The Chilean Experience: Triumph of Science and Technology, Triumph of the Human Spirit’, held at the UTT Campus at NAPA, Sunday November 14, 2010.

The Board of Governors of the University of Trinidad and Tobago welcomes this initiative of the Academy for Arts, Letters, Culture, and Public Affairs to mark the response of the New World to yet another threat and challenge.

Our region has always been a theatre for calamity: drought, hurricane, flood and riot; genocide, enslavement and indentureship.

But our region has consistently turned disaster into opportunity, opportunity for innovation and creativity, and for affirmations of the humanity and resilience of ordinary people.

So it was when the collapse in the San Jose mine came to test the Chilean people.

In this instance, the New World is represented by Chile, and the threat or challenge came when 700,000 tons of rock collapsed in the San Jose gold and copper mine and buried thirty-three miners more than 2000 feet underground for sixty-nine days.

We celebrate the rescue and we celebrate the **collaborative web and marriage** of engineering science, imagination, technological innovation, creative intuition and good old-fashioned doggedness. We celebrate all this as a triumph of science and technology and a triumph of the human spirit.

Our panel will explore the scientific, psychological and social dimensions of the Chilean experience. My task is to remind you of what you know and to free the panellists of having to go over the narrative. I have chosen, in addition, to set up a background for discussion of the psychological and social dimensions.

The story has two main parts. The first consists of what was happening above and below the ground in the uncertain seventeen days when there was no contact between them. The second part comprises the next fifty-two days when, contact having been established, those on the outside and those confined in the collapsed mine knew that while something could go wrong, rescue was possible. The psychodynamics in part one is

radically different from the psychodynamics in the less closeted part two when there was at least some light.

The narrative itself is straightforward and compelling. It is pure story, a sequence of actions in chronological order answering the question 'What happened next'. The story ends with the rescue of all thirty-three men, and we are left with the hope and the assumption that they will live happy ever after:

**Aug. 5** –Part of the San Jose Mine collapses trapping 33 men underground.

**Aug. 7** - A second collapse apparently seals the fate of the miners by blocking access to lower parts of the mine.

**Aug. 22** – The persistent rescue workers hear tapping on a bore hole probe which had reached a depth of 688 metres and they find tied to the drill a message written in red ink and capital letters: "We are alive and well inside the shelter. The thirty-three." The 33 had endured 17 dark days and haunted nights of isolation from the outside world. [The note has been added to Chile's intellectual property registry as a literary work in the name of its writer, the miner Jose Ojeda.]

**Aug. 23** - Communication equipment, food, water, emergency supplies and other items begin to reach the miners.

**Aug. 30** –Commencement of drilling to reach the miners. [Simultaneous drilling of three holes. Plan A aimed at the shelter in which the men were based; Plan B aimed at a machine workshop close to the shelter. Plans A and B drilled holes that would have to be widened; Plan C used a wider drill bit that would make a space wide enough for a rescue capsule to pass.]

**Sept.17** The Plan B drill bore hole reaches the caverns where the men are trapped. The next stage is to widen the channel.

**Sept. 25** – One of the three rescue capsules built to lift the men out of the mine arrives on site.

**Oct. 9** – The Plan B drill that is widening the space breaks through to the workshop near to the shelter .

**Oct 12. –Oct 13.** The world watches as the miners rise to the surface one by one in the Phoenix capsule.

It was the quest for minerals that drove the Spanish conquest and led to the conversion of indigenous peoples into miners. Four hundred years later, all over the world, the capitalist system still drives workers into underground lives. The San Esteban Primera Mining Company with a

dismal safety record was operating only because they have ‘friends’ in high places. To them, the miners were “an expendable commodity, far less valuable to the multimillionaire owners than the copper, coal, nickel or gold they extract from the earth with their labour.” (October 14, World Socialist Web Site [wsws.org](http://wsws.org)).

The miners entombed in the bowels of the collapsed mine were not like Jonah in the belly of the whale nor Lazarus locked in by a big stone. Whatever miracles took place were man made miracles. But there is no denying that faith played a part. Miner Mario Sepulveda declared: "I was with God, and I was with the Devil. They fought, and God won." He said he grabbed God's hand and never doubted that he would be rescued.

Although the miners were regarded as expendable commodities, they were stubbornly human, and their humanness was the rock on which the triumph of Engineering, Science and Technology was raised. For the first seventeen days of their trial, nobody knew they were alive and they did not think they would be found in that state. They had to bring out their trumps. Luis Urzia’s first words when audio contact was made with him was “Shift Foreman speaking”. The phrase deserves to be engraved as a statement about leadership and responsibility. **Shift Foreman Speaking**. One of the important lessons of the Chilean experience is about the nature and practice of leadership.

Before the great rescue began, Luis Urzia did what great leaders do. He inspired hope. He aimed to ensure that there were people to be rescued if it so happened that rescue came. When the rescue was completed he said: “We had strength we had spirit, we wanted to fight for our families and that was the greatest thing.” He knew about a group or organisation’s need for a shared purpose. He knew what a rallying force family is when a crisis arises.

Down in the dark hole, Urzia made each individual see himself as a leader and as a valuable member of a team. A man who had taken a nursing course became doctor. Another became an electrician and rigged up a lighting system to simulate night and day and maintain sleeping and waking rhythms. Jose Henriquez led prayer groups and requisitioned thirty-three Bibles from above. Another miner specialized in monitoring air quality. Another set up an exercise regime. Victor Zamora wrote poems to feed the spirit. Victor Segovia took on the task of writing down all that happened from August 5 to the moment of their death. Trusting their leader they agreed to stretch their meager rations by

each eating one spoonful of tuna and a half glass of milk every forty-eight hours.

One side of the original mandate of the UTT implied that it should be a place for relevant scientific research; for technological innovation and technical training based upon that research; and for advanced research in Energy including alternative energies. Like all the great Universities called Institutes of Technology, however, the UTT was intended to recognize that there are limitless innovations to be released from the meeting and collaboration between the Sciences, and the Arts and Humanities. To lead this process the original Board of Governors approved a philosophy of outreach to communities and set up an Academy that was to be integral to the University and that was expected to become “the leading Caribbean institution in the promotion and developing of our Arts in all its forms.”

The Chilean Experience is a text that enriches the world and we must claim that legacy in different ways in different places. Let me affirm on our side that the Board of Governors of the UTT will look closely at the implications of the Chilean experience for bringing the UTT back on course as **a unique and necessary institution** operating of course within a rationalized system of higher education in our much abused and deceived country.