“On the Importance of Being Scientifically Correct”

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A review of the 1992 Association of Science and Technology Centres (ASTC) Annual Conference, Toronto, Ontario, 3–6 October 1992

Over 1,000 delegates attended the meeting of the Association of Science and Technology Centres in Toronto. Since these centres have been especially successful in putting together dynamic displays that involve the public in a wide variety of activities, their annual conference on the visitor experience looked promising.

Lively discussions, and informative meetings took place as delegates exchanged views and established new contacts. Some of the key conference subjects included: financial survival, sponsorship and marketing, reorganizations, exhibit evaluation, sensory and experiential exhibits, gender and multicultural equity.

Strategies for survival were high on the conference agenda. In order to make it through the economic recession in the U.S. (e.g., California is cutting $10 billion from the state budget), directors of science centres were advised how to lobby political leaders. Also, sponsorship and marketing approaches were examined. As more and more centres become almost entirely dependent on non-government sources for their existence, the demand for financial support from the private sector is constantly increasing. The importance of convincing all members of staff to support marketing plans and concepts was also stressed.

Like the situation in Canada’s cultural centres, financial pressure in the U.S. is resulting in administrative reorganizations. According to George Moynihan, his institution, the Pacific Science Centre, emphasizes a strong mission statement, team work, building staff morale, flattening hierarchies, and the requirement that every employee spend 9 days per year on the exhibit floor, explaining programmes to the public. According to Moynihan, the effort institutions expend in redoing organizational charts is often a waste of valuable resources. Moynihan also mentioned setting up simple, mobile exhibits and artifacts that travelled to outdoor venues and were protected from the elements by tents.

The conference included some surprising tendencies. One is the emphasis on personal experience in interpreting scientific knowledge. Another is the rather strident and self-righteous tone present in meetings concerning gender and racial equity. This may be a reflection, in part, of the charged emotional climate surrounding these subjects.

In this age of psychotherapy only personal experience is seen as valid. Everything, including science, is seen through this “objective” lens. Delegates were told to be particularly vigilant about racial and gender discrimination in science, and about the relationship between science and politics. In fact, for some delegates and speakers, the two are synonymous. There is an obvious contradiction here. Although there is no denying the importance of personal perspectives, one of the tenets of the scientific approach is to limit the impact of personal bias on laboratory results.

Lines are blurring, not only between science and politics, but also between cultural and history centres and those of science and technology. Some science centres are now doing exhibits on the arrival of Columbus and genocide in the Hispaniola Islands, challenging subjects that would make many directors of history and anthropology museums wary.

This type of display may seem confusing for visitors expecting to see scientific and technological exhibits and inappropriate for science
centres. It is possible, however, that they are the only venue in town. Thus, the centres cover the gamut of history and science subjects.

From a museological perspective, not only is it curious to see science and technology centres doing exhibits on history and archaeology subjects, it is also disconcerting to discover that they are neglecting objects and technology. The evolution and significance of scientific instruments and of technological developments in general are examples of subjects that merit the attention of the staff of these institutions.

The discussion of gender and race raised the question of political correctness. Anthropologists and educators convinced many eager delegates that it is not as important to be "politically correct" as to be scientifically so. The two seem inseparable, however, because delegates were told by professor Jack Forbes of the University of California to avoid terms such as Indians (now First Nations or Peoples), Hispanic (now Latinos) and ladies (now women).

Once the right terminology is understood, we should embrace the science of the First Peoples and of different cultural groups. We learn that first inhabitants' knowledge of the environment is relevant today, especially if we remember that traditionally they identified the earth as our mother and our grandmother. According to the anthropologist, Forbes, such knowledge should help us show more respect for our land and common heritage.

Is there room here for scientists who, frustrated with orthodoxy, are chipping away at bedrock assumptions? Unfortunately, since few scientists seemed to be involved in many of the debates, it was not clear how their experience and knowledge could help science centres break into new areas.

In a session on museums and equity, speakers mentioned the hope they hold for scientists who are women and/or members of minority groups. These people will break new ground, provided they have the confidence and courage to go beyond the constraints of existing scientific methods. Something few have done, apparently. While waiting for this kind of innovative work to be displayed in science centres, one hopes that their staffs will find the means to vet some of the premises discussed at this conference.

An educator, who presented a neat framework for interpreting the role of women in science, seemed to exclude the traditional role of women in applied or domestic science. She said that prior to the twentieth century, western women of science were confined to domestic science and later to home economics. Thus, scientific activity was limited and women demoralized. Anyone taking grade 7 home economics, she added, knows what a demeaning experience is about. This comment was followed by loud applause — it was difficult to know if the meeting was part of a professional conference or a political rally.

"Couldn't," asked a male delegate, "this framework be expanded to include the role of rural women? Until the late nineteenth century, about 80 per cent of the population was rural." He said that farming women interpreted medicine and practised basic physics in keeping their families clothed, fed and healthy. Couldn't these past experiences be seen as positive building blocks instead of negative role models? Ways in which women applied science to real life situations in the past do not seem as important to many professional women as current experiences and agendas.

"Well," said another male delegate, "I may be younger than you all. But, I was so impressed by my mother's use of basic physics in the kitchen that I decided to take home economics — a fascinating subject indeed."

Are sons standing up for mothers and grandmothers? Can they reconstruct a reality their fathers never knew?

As we descend into the darkness of unknown realms, we may need the help of Hermes, the messenger and Greek god of science, plus other young deities, to accompany us back to light. The trip is promising to be hot, if not illuminating.