

ECSITE

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Parallel Session: 9.00 am - 10.15 am

Entertainment industry vs science centres – so near and yet so far?

Convenor: Bernard Burel (Executive Director, Cité de l'espace, Toulouse – France)

Speakers: Silke Petzold (Senior Consultant, Wenzel Consulting AG, Hamburg – Germany); Axel Hüttinger (Director, Kurt Hüttinger GmbH – Germany); Chris Scurrah (Development Director, Merlin Entertainments Group Limited, Poole – UK)

This session will focus on the development and the situation in the market of science centres and the entertainment industry (especially visitor attractions). The financial situation of communities and other institutions makes it necessary to think about new ways of financing science centres. In general science and discovery centres in Europe and in the US rarely earn more than 70% of their operating expenses. However, in recent years some institutions have shown that it is possible to make a science or discovery centre financially stable without depending on annual public subsidies. This session will examine the central issues of setting up a project and operating it: is it possible to copy a working financial model from the leisure industry and implement it at a different location?

Entertainment industry vs science centres – so near and yet so far?

(Axel E. Hüttinger)

Science Centres are places of education and entertainment. These two notions represent two ends of a spectrum, in which each individual science centre must position itself. The view from inside need not necessarily correspond with what is perceived from outside. A few years ago, the Flemish Science Centre *Technopolis* commissioned a study to find out how the Centre is valued by its visitors. The result was "shocking": People did not see a big difference between *Technopolis* and *Disney Land*!

This has led to an extremely heated debate, particularly in Germany: a debate about co-existence, about conflict and rivalry, and about co-operation between educational facilities and the leisure industry. Why are heated discussions are going on in Germany, in particular? It is when one takes the small number of existing science centres into account.

Five years ago, I read a paper on this topic at the ECSITE Conference in Naples. At that time, I was rather influenced by scenographers and EXPO designers, who had grown increasingly numerous in our discipline. In my paper I proposed that science centres should understand the techniques and experiences of the leisure industry. They should, in any case, integrate new ideas and concepts in order to eventually take account of changed consumer behaviour and leisure habits as well as new demands generated by the visitors. The methodology of the leisure industry, so I thought, should really be used to accomplish the mission of a science centre. This is best achieved with the help of designers who work for commercial leisure attractions as well as for informal educational facilities. In this way, a "technology transfer" would be guaranteed in an elegant and cost-effective way. This reasoning is brilliant, because we as a company fit perfectly into this profile ...

Since the conference in Naples, I have been working on many, very different projects and for very different institutions and have thus been able to considerably expand my horizons. I have had to adapt and change my opinions. A science centre is, in fact, an informal educational facility. Its long-term goal is to generate knowledge and educate the visitors. Or learning, if one prefers that term. All of us who design, build or operate science centres want visitors to take more interest in science and technology. We want visitors to enjoy the time they spend in a science centre; we want it to be fun for them to play with exhibits and interactive installations. We want that, because we want to generate interest and fun in the acquisition of knowledge. And this, in turn, we want, because knowledge and cognition are desirable long-term goals for a society, even for the whole of mankind. "Man, from his very nature, has a desire for knowledge", said Aristotle. All of us who work in this field, those who operate science centres, as well as service providers, are acting within an education framework. The fact that a popular scientific attraction must also make money, in order to be able to exist at all, is uncontested. Therefore, I will not consider that in detail.

One can neither ignore nor exclude the mission, i.e. the educational goal of a science centre. This is the basis of its existence, and this basis unites all science centres. The yardstick of success is, therefore, the question of whether a science centre accomplishes its mission in the long term. This question also relates directly to financial circumstances. Without a sound cash flow, the institution cannot maintain its position and can, therefore, not achieve its educative long-term goals. And it should be able to achieve them in the long term without any excessive dependencies – on anyone!

There are, however, very different forms of such successful informal educational institutions. In the past few years, I have participated in the development of very different science centre projects. The directions taken followed to accomplish the educational mission differ significantly. The decision for or against the integration of methods used in the leisure industry has, again and again, been taken in a different way. As a result we are now, on the one hand, looking at institutions in which those methods, i.e. scenography and design, are incorporated to a very large extent. On the other hand, we see science centres in the Oppenheimer or Exploratorium style, in which the visitor can experience classical exhibits undisturbed and completely interactively, and with very little decorative or environmental design involved. From my present point of view, both ways can lead to success. Both routes can, however, lead you astray. There are examples of both ways.

Today I can no longer say without reservation that a science centre is only successful when it makes use of the methodology of commercial leisure facilities. For the exhibition *Exploration and Discovery* in the Glasgow Science Centre we designed, for instance, very impressive stereoscopic images and, thus, linked the scientific content together with a scenography that followed the ideas of commercial leisure attraction and EXPO designers of those days. We think that we succeeded in appealing to the taste of a very broad target group and, in doing so, addressing people who have a less strong desire for scientific findings. The exhibition is now in its fifth year of operation and still works to the satisfaction of everyone. One could now think that this is owed to the attractive exhibition design. But there are, however, also purist examples which are equally successful. Thus we have contributed to the *Mathematikum* in Gießen in Germany, which is led by Professor Albrecht Beutelspacher in accordance with Oppenheimer's school of thought. No "meaningless" design, no scenography disturbs the visitors when playing with the exhibits. Exactly this is accepted by the visitors – the consistently high numbers of visitors and their satisfaction are a reflection of this.

As a consequence I am of the opinion that design and scenography can, of course, be used sensibly in order to achieve certain goals. Under certain local, spatial, financial or cultural circumstances, a purist approach can, however, also be effective and "sensible". Scenography and design are not an end in themselves in our field. They serve the mission. And sometimes they can impede. It may be necessary to adopt a new method. In order to find a different path one should, first of all, be aware of what the actual process of learning in a science centre actually includes: learning in informal educational facilities means involving visitors in real things and processes. This is the key to success. I have experienced this again and again regarding our various projects in the past. People, particularly our main target group, the children, want to be active, they want to touch things and play with them. Every time we create a simulator or an indirect experience, we lose part of the quality of a visit. People want to get "hands on", i.e. have their "own" experiences - experiences which they have made themselves!

This message does not necessarily exclude the design of scenarios and of impressive stereoscopic images. On the contrary, wherever scenography helps to support the experience of real things and processes, one should use them. It does, therefore, not matter that stage sets are orchestrated. But it matters that when they are used they are used intelligently. Still the best example in Germany is the mine in the Deutsche Museum in Munich. Generations of visitors have raved about it. However, it remains to be seen whether the new pharmacy exhibition, with a strong element of environmental design and rather little visitor contact with real things, will hold its own.

A last important question regarding the key to success are the proper expectations in terms of what a science centre can accomplish. This, to be precise, is the counterpoint to the debate in the relationship between entertainment and education. The one who regards a science centre as a leisure facility among other leisure facilities may well underestimate its potential. The one who regards it, however, as a substitute for schools or books demands too much of this facility and thus destroys the specific essential trait of an informal educational facility. Although the long-term goal is mainly cognitive understanding, our special role is to arouse interest for the topics and content in the visitors. We can motivate visitors with good exhibitions and programmes to continue dealing with the topics. We can give them the self-confidence that they have the talent for that as well. To stress this: science centres work really well as motivators and an initiators of processes of cognition. If they try too hard to generate cognition and knowledge directly and during the visit, they lose much of their power as motivators.

Science centres simply cannot impart substantial quantities of structured knowledge to visitors. Should we be able to cope within one visit with something for which formal education needs years? If a visitor understood the operating principle of fluid mechanics, only because he once played with a Bernoulli blower, the years of physics lessons in school would then be completely useless! If, however, we succeed in achieving a certain "Ahah!" effect in a child that makes him curious for the next physics lesson, we have reached our goal. When planning projects it is, therefore, absolutely necessary to confine oneself to the content which can be communicated effectively in the experience-related way that characterises a visit to our exhibitions. This is something that some scientists find particularly difficult. But in order to be successful, we must generate as many inspiring experiences as possible, which, in turn, can be embedded in attractive and entertaining forms. If we do not do this, and if we attempt to teach structured science, we lose the importance of the science centre as a source of inspiration and motivation for dealing with science and technology – and, ultimately, we also lose a proportion of the paying visitors, who keep the science centre alive.

I argue that science centres must become aware of their unquestionable strong points. It is the opportunity as an informal learning place to accommodate "real things and real processes". This makes science centres strong and demarcates them from other facilities of the leisure industry, with which it is anyway not possible to compete effectively on a basis purely of visitor numbers and gate revenue. It is a mistake to try to turn science centres into leisure and recreation facilities.

A cinema is still a cinema, and a shop is and remains a place where you do your shopping. In this context I personally see science centres as popular scientific attractions that individually stand in contrast with other leisure and recreation facilities, and hold their own sensibly and intelligently in the light of a struggle for financial self-sufficiency that cannot be won. From this ensues also my answer to the question of the usefulness of borrowings from the leisure industry: They are useful, but not as an ends in themselves. In each individual case it is necessary to weigh up, whether the given circumstances necessitate an integration of design and scenography to a greater or lesser extent. Perhaps the guiding criteria are the profile of the audience that the science centre wants to, and can, attract; and what impact it wants to have on that audience. It should have a clear vision of these things, and stick to that vision.

Borrowings from the leisure industry are sensible if they serve experience. Experience is sensible if it sharpens and increases perception at the moment of that experience. This intensification is good if it serves to generate interest. The generation of interest serves mankind in any case, for knowledge and cognition not only make humans humans – they make us and our world better and our lives more worth living.