# LET'S PLAY SCIENCE! (SCIENTIFIC INSTITUTIONS AND MUSEUMS - TOGETHER FOR THE CHILDREN)

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The Scientific Research Centre SASA is one of the central Slovenian scientific institutions. It is made up of 14 humanities research institutes, two from the field of natural sciences and one specialising in social sciences. On 31/12/2007 it had 315 employees, including 265 researchers. SRC also has its own publishing house and bookstore. In 2004 the Centre for Promotion of Science was founded with the aim of affirming as many of our research results in public as possible.<sup>1</sup>

It is a widely known fact that researchers most often present their research in the usual, classical way: in writing (monographs, articles etc.) or orally (presenting papers at scientific, professional and press conferences). These presentations are more or less intended for professional and academic circles. This cuts us researchers off, whether we are aware of it or not, from the general public and as a consequence science is more and more becoming

something done merely for its own sake, at least in our country. Because of this I have decided to direct the promotion of our research towards those who know least about it, i.e. school-age children, during the summer holidays.

As elsewhere in big cities, there are many holiday activities of this kind in Slovenia. Especially in Ljubljana, there is hardly a cultural institution, museum, which does not offer workshops for children during the summer. At the start of developing my idea, I was especially interested in what kind of content these workshops offer. This was not difficult to find out, since usually the content refers to a specific theme of an exhibition on display at the time or to a museum's general orientation (e.g. City Museum of Ljubljana - the theme of Ljubljana, Slovenian Museum of Natural History - nature, etc). The results of these workshops often take the form of various kinds of hand-made artefacts produced by the children. Since



<sup>1</sup>At the present moment, I am its only employee. I work there part-time and as a researcher for the rest of my working day.

our researchers undoubtedly have a very in-depth knowledge of particular museum exhibitions while lacking pedagogical experience (except as parents), I have developed the programme for SRC's holiday Research Playshops bearing this in mind. This is most expressed in the motto Let's play science! which combines what researchers have to offer with the pedagogical work of curators-teachers. However, my most important assumption about working with children was that children should acquire new knowledge on the basis of their own experiences of science.

## Choosing the Right Content from the Research of 17 Institutes

It turned out that for the purposes of the Research Playshops natural science content is least demanding, since it can be easily and attractively presented to children in the field and in laboratories: for example, children acquired speleological content by visiting a Karst cave where, under the guidance of researchers from the Karst Research Institute, they became real cavers with all the necessary equipment;

At the Paleontological Institute they looked for dinosaur bones in the dinosaur sandbox, arranged them to form a skeleton, made dinosaur droppings from clay, at fruits



Fig. No. 1 – Speleology Day (visit a Karst cave, July 2007; Photo: Marko Zaplatil)

the dinosaur would eat and extracted fossil remains from the rocks from the excavation site; on Biology Day, children set out with all the necessary equipment in search of specimens – crustaceans, butterflies, insects, plants – which they afterwards studied in the laboratory of the Institute for Biology with the help of microscopes, magnifying glasses and so on.



Fig. No. 2 – Biology Day (Laboratory Work, July 2006; Photo: Igor Lapajne)

Similarly, on Archaeology Day we took the children to archaeological sites where researchers from the Archaeological Institute guided them through the process of looking for and excavating remains from the past. Every year field work is also part of Geography Day, when children, accompanied by geographers and others, walk around a water source for the Ljubljana area, for example, where they measure parameters for drinking water, make an ecological poster etc.

Computer-oriented content is also not very demanding: nearly every year researchers from the Institute of Anthropological and Spatial Studies in cooperation with photographers from SRC organise a very popular Digital Photography Day where children learn how to use a digital camera and computer software with which they can shape the pictures they take.



Fig. No. 3 – Computer Day (July 2007; Photo: Igor Lapajne)

Content such as history, art history, linguistics, musicology, ethnomusicology, ethnology etc. is somewhat more challenging. Especially in these areas I tried to find the appropriate connections with museums, sacral institutions, libraries, various cultural societies etc. Let me mention just a few examples: for the 300th anniversary of St. Nicholas' Cathedral, with the help of a researcher from the Institute of Art History and in cooperation with the Archiepiscopal Office in Ljubljana, we climbed up to the dome, visited the seminary library, which is not easily accessible to the public, and got acquainted on the spot with some of the art in the church and its meaning. Linguistics Day took place in our summer playshop: under the supervision of a researcher from the Institute of the Slovenian Language the children became detectives who - by learning to decipher different kinds of writing systems - familiarised themselves with Egyptian hieroglyphs, cuneiform, the Greek, Cyrillic and Gothic alphabets and Germanic runes. By visiting our central national university library and with the help of librarians they got acquainted with the importance of literature for Slovenians and even took a peek in the vaults containing the oldest original written texts in the Slovenian language.



Fig. No. 4 – Library Day (July 2008; Photo: Marko Zaplatil)

For the purpose of finding out about Primož Trubar, author of the first book in Slovenian, we got in touch with the City Museum of Ljubljana and together with the author of the exhibition and the museum's pedagogical worker visited the village where Trubar was born in near Ljubljana, where with the help of a local cultural society the children made a book of their own. We also found out what ethnologists are up to: we took the children to the village of Kropa, known for its iron forging tradition, located in the Gorenjska region, where they conducted interviews with locals, just like real ethnologists, made nails in the Iron Forging Museum and together with local children got familiar with some of the typical children's games and dances from this region. We presented folk music to the children in an ecological manner: together with a researcher from the Institute of Ethnomusicology they made folk musical instruments from ecological waste, learned to play them and in the end visited the Voices of Slovenia exhibition in the Slovene Ethnographic Museum. Through knowledge of history and in close cooperation with local and regional museums we got to know some towns and places outside Ljubljana. For example: in the Celje Museum of Recent History the children got acquainted with the



Fig. No. 5 – Pelikan's Photo Studio in Celje (July 2008; Photo: Marko Zaplatil)

town's history through the *Craftsman Street* exhibition; they also visited the photo studio of one of the most important Slovenian photographers — master Pelikan — located in Celje.

In the Municipal Museum of Radovljica, among other things, we made stuff from wax, since bees and beekeepers form an important part of the local history of this place in Gorenjska, etc.

In addition to all that I have already mentioned. I also decided to offer the children content which does not come directly from our actual research work. This includes architecture, art, life in foreign cultures and such. This part of the programme is carried out by either museum curators (of the Architecture Museum of Ljubljana, in the case of architecture, which in the year 2008 offered a pedagogical programme entitled A Walk through Secession Ljubljana) or individuals (in the case of art we hosted, among others, the famous Chinese painter Huigin Wang who taught the children about calligraphy; for playshops dedicated to foreign cultures we hosted a Mexican family and a painter from Argentina; in cooperation with the City Museum of Ljubljana we organised a



Fig. No. 6 – International Cookery Day (The City Museum of Ljubljana, July 2008; Photo: Igor Lapajne)

cookery day and prepared national dishes from Poland, Peru, Thailand, Morocco etc.).

Last year was the first to include a social theme such as the life of blind and visually impaired children. With the help of an expert from the Institute for Blind and Visually Impaired Youth the children emerged themselves into the world of darkness and together with a curator/teacher they also visited the part of an exhibition in the City Museum of Ljubljana dedicated to blind and visually impaired visitors.

These are just a few examples from our rich programme which differs from other holiday programmes for children in our city in that for the duration of the programme (a week) the child becomes a researcher in a different scientific field every day. The children are therefore offered different content every day which prevents repetition.<sup>2</sup>

### In the Future

Such a wide range of content demands extraordinary organisation and readiness for cooperation on the part of our researchers (who are volunteers) and partner institutions alike.

On every day of the *Playshops* two different programmes were carried out simultaneously for two age groups (younger, older).

<sup>&</sup>lt;sup>2</sup>Previous Research Playshops went on for two weeks in July: in 2005 - 36 children, in 2006 - 51 children; in 2007 - 70 children and for three weeks in July 2008 - 96 children.

Most of these institutions are museums. but this is something I intend to surpass. since last year, together with the City Museum of Ljubljana and the National and University Library, we arrived at the idea of organising the Island of Curiosity, which is planned to take place for at least two weeks during the next summer holidays in one of the parks in the centre of Ljubljana. Every day children would be able to choose among different content offered by researchers from SRC, curators from the City Museum of Ljubljana, curators from the Ljubljana Museum of Modern Art (an art gallery) and librarians from the National and University Library. The project is to be financially backed by the City of Ljubljana and the Ministry of Culture and is intended to be accessible to as wide a range of children as possible. In this way I hope we will succeed in adding art to the connections we have already established between science, museology and libraries.

In my view, the purpose of these connections is to give schoolchildren as much access as possible to themes and subjects which some day may be part of their profession. In addition, other purposes are: to harmonise content in the area of children's workshops and highlight the specificity of each participating institution; to familiarise children with all four fields in a relaxed and playful manner, i.e. in a manner that would enable us to change the stereotypical view they not rarely have of boring scientific institutions, museums, galleries and libraries. Since all four mentioned institutions are already making an effort in this direction, I see these connections as a mutual enrichment of content which will surely benefit the popularisation of not only science institutions, but other participating institutions as well.

#### References

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