

**The Storytelling in Science Communication at the Museum of Science and  
Technology School of Mines , Federal University of Ouro Preto**

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**Abstract**

The Museum of Science and Technology School of Mines, Federal University of Ouro Preto several years developing outreach activities and science education. From the intersection between Science, Technology, Arts and Science Education begin the project that aims to contribute to the dissemination of scientific knowledge, stimulating and enriching learning through play. Before the advent of television and the internet, the experiences were shared among family and friends. Had time and space for grandparents and parents convey the stories of family or place. These stories passed from generation to generation, often made myths mouth storytellers, that held, in the magic of his words, the attention of children and adults. The storyteller lost his place for the video where the history is so rich in images, it does not take any effort of imaginative fantasy. Given this reality, to rescue the playful, the development of the senses and feelings, the taste for oral expression and body and a taste for knowledge, we have the contribution of the arts. Thus the mediation of art can go that route because excites the senses, the imagination and desires and causes restlessness. Interact directly with visitors arouses curiosity and

enhances the interest in what they will find in the context of the museum. The storytelling as a way to mediate between audience and artwork or technical and scientific knowledge, the strategy was chosen for this project through the character creation Juju. She is a storyteller timeless.

### **A Museum in a School of Engineering**

The School of Mines, founded in 1876 in the city of Ouro Preto is a pioneer in engineering education Metallurgical and Mining in Brazil. This school has gathered a significant collection dedicated to teaching consisting of mineralogical, anthropology, paleontology and zoology specimens, teaching models, apparatus for surveying, physics, metallurgy, mining, construction objects, and astronomical observation equipment. In order to preserve and promote this collection, in 1995, the former Museum of Mineralogy was transformed into the Museum of Science and Technical School of Mines , Federal University of Ouro Preto (UFOP).

Featuring a collection of about 20 thousand pieces , exhibited in thematic sections, covering various areas of scientific and technological knowledge , the museum conducts educational activities aimed at training students and other visitors . In addition, lectures are used in practical classes courses in Engineering , Biological Sciences and Museology . Presents the following sectors : Natural History, Mining , including exposure of stonework , Mineralogy I and II , Physics / Interactive Science , Metallurgy , Chemistry , Surveying , Drawing , Astronomy with your Astronomical Observatory, Electrical , Steel , Railways , and still gallery of the Old Student , Pantheon and Gorceix Chapel . In the building , the rooms are also the Congregation and the Board of the School of Mines , the Permanent Archives and Rare Books Library , and the latter part of the script visitation Museum.

### **Museums , A Natural Space for Education**

In Brazil in the last decade the actions of teaching, dissemination of science and education and training of teachers now receive greater attention and funding from the Federal Government.

In the country the Brazilian museum field has also undergone a major transformation , with the development of a specific policy for the federal public sector. This government policy was converted into a state policy with the approval of Law 11904 in early 2009, which established the status of Museums, regulatory framework for the sector (Nunes , 2011).

The law has articles directly devoted to educational activities and the relationship between museums and these practices by clearly defining the concept of the museum, in line with other authors, and enshrines as an institution dedicated to education , though not formal (Nunes et al , 2013).

Regarding the educational dimension of a museum , in addition to the concepts present in large museological literature , Brazilian legislation has provided a duty of museums the development and maintenance of educational activities programs (Nunes et al, 2013 ). These legal aspects are fully met by the Museum of Science and Technical School of Mines UFOP that not only practice the research and conservation of collections activities, but performs the museological communication through its exhibitions and educational practices gathered in an outreach program university , PRO-SCIENCE.

The Integrated Program of Extension Education and Promotion of Science (PRO-SCIENCE), brings together all initiatives in this action developed by the museum in this area. Created in the first half of 2004, now part of this program, outreach projects: Astronomy in the Community and Itinerant ; Museum Education ; Pharmacy Education ; Taxidermy and Education Programs of Radio Science Communication . Besides these projects , constitute part of activities such as conducting courses and taught workshops for the community, students and teachers from area schools program (Nunes et al , 2005).

### **Mediation in museums**

The action of mediation involves two poles which interact through a third party, a mediator, or one that performs the designs of intermediary. These designs in mediating between exposure, its collection and spectator , seeking enjoyment (Martins , 2012).

In a museum, the mediator acts as a narrator and at the same time, witness and co-creator of the works shown and the multiple meanings given to it by the visitor If the

mediator is endowed with imagination, the narrative becomes a storytelling. Mediation should be developed in a provocative and exciting way to thinking and feeling, perception and imagination. Thus, mediation is characterized as an act capable of opening dialogues, also internal, amplified by the socialization of knowledge and personal perspectives of each spectator (Martins, 2012).

Thus it is desired that the education of children and adolescents occurs in a context able to provide elements that contribute to its development. Therefore, it is important to your interaction with society, its development, not only cognitive, but emotional and affectionate, and the construction of identity, individual and collective. Thus the arts, besides being vehicles for aesthetic development, balance, self-esteem and self-awareness, are excellent media for social interaction, since that cause the cognitive and affective aspects interact gathering knowledge and sensitivity. In the past, knowledge was transmitted orally. It was in this way that knowledge was transmitted between generations. The popular memory was cherished and handed down by storytellers, who played an important role in primitive societies. In a museum times repeated the stance of the spectator is neutrality. As he often falls look and listen in silence, and the dialogue is deleted, there is no time to reflect or take a position, because new information and new images come running over the front and neither can be ignored. The imaginative capacity decreases and, if not fed by ready and increasingly spectacular imagery, interest in what surrounds us wilting as the plant to which water does not occur. This is a behavior that occurs both with children and with adults.

Given this reality, what can be done to rescue the children a taste for imagery? What are we doing to help our children to express their thoughts and feelings and like to live physically with peers and family members?

In this perspective, it is of paramount importance to make an effort for the rescue of playfulness, the development of the senses and feelings, the taste for oral/body language, the love of reading.

The stories populate the imagination, nurturing the spirit. The transforming power of his magic acts both in who counts as for those listening. The ritual followed, the scenario is constructed, the expressiveness of the eyes and body posture creates a magical

atmosphere that makes this extremely supportive experience. A story, plus fun and use your imagination, it can be a way to teach and consolidate knowledge, expand vocabulary and make them understand new languages. So join the storytelling to a monument, or, more precisely, to a museum, you can become more present knowledge. To turn the visit to a museum through storytelling, activates the playful side of involved and consequently imagination. In the quest for the transmission of knowledge, resources and languages of art come only enhance and facilitate the learning potential of the individual in dealing with issues such as science and technology.

### **A Proposal for Cultural Mediation in a Science Museum**

From the considerations presented then broke to search the storytelling as a tool of cultural mediation and transformation as part of the visit to a museum in a playful learning experience.

It was noticed that the scenic game performance , allied to the playfulness of the stories told, streamlines and assimilate the contents present in the museum's exhibits . As proposed Busatto (2003), the counter can adapt to different spaces, different activities, different experiences to recount a story.

Thus, trying to gather scientific knowledge and mediation by art and storytelling that was born the character Juju . A teller of stories timeless character played by this author with the guidance of the scientific co-author of the text topics.

The Juju live at the Museum of Science and Technical School of Mines UFOP getting children of any age if they are willing to travel the museum, without prejudice. The trip is intended to be instructive, but, above all, very fun, going through several museum exhibitions.



Also according Busatto (2003), in performance , in addition to know- say and know-how, the accountant has to learn to be on time and space and this is only possible through her corporeality.

So the counter should be fully integrated into the text that narrates and, through his performance, do, say, and be the story to his listeners (BUSATTO, 2003), and thus it is intended that the Juju act.

In just over a year of activities at the museum, mediating and being mediated by children, adolescents, and young adults, it was possible to verify the existing wealth in the narratives. The interest of adults and curiosity of children are evidence of how to hold the attention of listeners, starting from the museum's collection to tell an interesting story. The process of who counts and who hears it is always a two-way street. By incorporating the comments, whether through an email from a teacher or a letter child improved the performance of Juju. Positive reviews yet validate the methodology and practice mediation employed in the museum.

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