New possibilities for science museums: Museological Reflections Group, 1\textsuperscript{st} edition

**Abstract**

This paper briefly describes a new academic discussion project first presented on November 29\textsuperscript{th}, 2016, at the “Universum Sciences Museum” in Mexico City. Interdisciplinary professionals comprise the Museological Reflections Group (MRG), whose aim is to think and explore new possibilities for science museums. The group’s first edition, offered the theme “The Sciences behind Showcases: Anthropological and Archaeological Processes”.

**Keywords**

Public understanding of science and technology; Science centres and museums

**Context: what is a MRG?**

We live in difficult times. Museums around the world cannot ignore this, as their own future is at stake. Scholars and museum professionals agree that all museums urgently need to transform their exhibitions and processes. If museums aspire to be cutting-edge social institutions, they must eschew antiquated work and adopt new strategies [Bradburne, 1998].

In this context and considering current consensus around the crisis of scientific museums [Van Mensch, 2016], new management plans, goals, and strategies are aimed at engaging diverse and larger audiences. In addition, museums must promote different kinds of events that stress and encourage communication between scholars and public: seminars, round-table discussions, conferences, workshops, courses, among other types of meetings which emphasize creativity, new ideas, and forward thinking.

This brief review describes an academic discussion project that contributes to finding future possibilities for science museums. In order to expand horizons, the first Museological Reflections Group (MRG)\textsuperscript{1} convened at the “Universum Sciences Museum” on November 29\textsuperscript{th}, 2016, located on campus at the National

---

\textsuperscript{1}Known by its Spanish acronym GRM.
Autonomous University of Mexico\textsuperscript{2} in Mexico City. While the Museological Research Seminar\textsuperscript{3} has assembled for over a decade, the first MRG met on this occasion as an innovation. What exactly is a MRG?

The International Council of Museums (ICOM), in the “Code of Ethics for Museums” [2013], stresses shared knowledge and experiences between museum professional personnel and between them and peer institutions. Some advantages derived from these exchanges may be innovative projects and more professional collaborations, which tend to strengthen collegial relationships. The MRG therefore constitutes interdisciplinary scholars and specialists form different museums, whose goal is to transform museum content through collaboration, and to generate theoretical discussions and practical proposals.

The MRG novel key revolves around “learning communities”\textsuperscript{4} pedagogical theory. Learning communities appeared in the 1980s as an effective option for increasing student participation and critical thinking. Contrary to the traditional professor-student or explanation-passive absorption educational model, learning communities are small groups of people that share common goals, and discuss and analyze complex or polemic topics. Learning communities empower students by establishing dialogue and participation, despite schools’ inevitable social and intellectual inequalities [Elboj and Oliver, 2003].

Learning communities have also appeared in other areas, such as primary schools, where teachers come together in “professional learning communities” [DuFour, 2004]. Despite the multitude of academic events undertaken in museums, projects like the MRG may promote a new model for internal museum professional team building and collaborative outreach with other cultural institutions. The MRG may provide suitable contexts for discussing controversial topics and improving collaborative decision-making.

How to organize a MRG?

The Museological Research Seminar and its general coordinator held the first MRG. However, MRG’s independence might be the norm under different circumstances. A thematic coordinator hones the professional group’s focus, in that they are considered specialists in their corresponding areas. Then each MRG centers group discussions on the analysis of a particular topic in meetings and videoconferences over the following months. The progress and collective efforts have two intended outcomes: the public session roundtable presentation, where students, teachers, professionals, and interested public add input, and papers, which are published in relevant professional journals.

A thematic coordinator structured the first MRG in August, 2016. After four scheduled work sessions, two at “Universum Sciences Museum” facilities and two others conducted through videoconferences, the collective public presentation took place on November 29\textsuperscript{th}, 2016. Social networks and a webinar (virtual meeting room) specially designed for the MRG completed work session formats. Mexico

\textsuperscript{2}Known by its Spanish acronym UNAM.
\textsuperscript{3}Known by its Spanish acronym SIM. More information in www.simuseo.net.
\textsuperscript{4}More information in Center on the Developing Child, Harvard University, http://developingchild.harvard.edu/collective-change/key-concepts/learning-communities/.
City’s inherent size and complexity made this virtual format group feedback essential.

While designing the virtual meeting room presented a challenge, Universum’s personnel successfully cleared these hurdles. All learning communities have participant usernames and personal passwords to login to virtual sessions similar to e-classroom formats; though, the MRG could not have a classroom. The MRG project highlights on the professionalism of all the participating colleagues and fomented peer discussions. The first MRG transformed the e-classroom formats and all meanings related to education, and adopted a webinar o a “room” that helped hone ideas through selected bibliographic references for each session.5

The first MRG included Luisa F. Rico Mansard, PhD, as the general coordinator, and Blanca María Cárdenas Carrión, MA., as the thematic coordinator. The members of the group were Alejandra Alvarado Zink, Jorge Carrandi Ríos, Lilly González Cirimele, Diego Alonso López López, Gerardo P. Taber, Rodolfo Rodríguez Castañeda, Silvana Arago, and Gabriela Guerra; all renowned Mexican specialists in museum studies, exhibitions management, and museography.

This first MRG, on November 29th, 2016, summarized the theme “The Sciences behind Showcases: Anthropological and Archaeological Processes”. The main objective was to think about the presence of the research and museographic design processes in Anthropological and Archaeological museums, as well as to discuss on the importance of exhibit the research methods, workspaces, and other relevant aspects in the construction of scientific knowledge.6

This topic arises from specific motivations in the field of the Science Communication. It highlights on processes and controversies in science, rather than academic community consensus and scientific results. Community interest in scientific practice and its historical and social components has coined concepts such as “public understanding of research” [Field and Powell, 2001], “unfinished science” [Durant, 2004] and “science-in-the-making” [Shapin, 1992].

This initial MRG covered three major sections. In the first, “Defining Science: Results versus Processes”, MRG members explained to the public possibilities and underlying virtues of understanding science as a living enterprise in permanent construction, complete with emotions, meanings, difficulties and collective efforts. Science is the result of the confluence of diverse practices, instruments, points of view, methods, stories, interpretations, evaluations, debates, and dialogues.

The second section, “Scientific and Museographic Design Processes in Museums”, evolved from four months of heated conversations on how to present those research processes in a museum. Although the MRG focused on theoretical considerations, some of the museographer colleagues stressed practical thinking and possible quotidian applications of theory. During the session, the MRG revolved around ideas that would allow processes integration in Anthropological

5The MRG worked with nine texts of recognized authors: Roger Bartra, Ana Delicado, John Durant, Manuel Gándara, Bruno Latour, Fred Lightfoot, Antonio Machuca, and Don Pohlman.
6This topic forms the basis for the author’s dissertation research, registered in 2017 with the Philosophy of Science Graduate Program, at the National Autonomous University of Mexico.
and Archaeological museums, such as collections reorganization and reclassification, recognizing intangible cultural heritage,\(^7\) dynamic and interactive events design, including audiovisual and digital media in exhibitions, community participation, interdisciplinary work, forging inter-institutional commitments in museums, careful scientific and museographic scripts elaboration, itinerant and temporary exhibitions, citizen science projects, among other procedural mechanisms.

An essential part of the MRG session included concrete future goals. The MRG project commits the members to contextualize ideas and to construct proposals. The final section, entitled “Museums in Mexico: Building proposals”, addressed why processes should be an integral ingredient in a museum. Each member explained their understanding of the subject and its use to society, possible ways to make museum visitors more conscientious of their role in safeguarding cultural heritage, and the key goal of creating a society more respectful of cultural diversity.

**Conclusions:**

Creating a MRG in all museums

This initial collective exercise illustrates the value of thinking new possibilities for science centres and museums. The first MRG caused a positive impact on professionals and public that participated on November 29\(^{th}\), 2016, and future MRG project goals at “Universum Sciences Museums” are to develop two to three different annual groups to discuss other topics and timely results.

The achieved aims for this initial academic project offer key growth and development opportunities that can be applied to other museums around the world. Unlike other academic events, MRG purpose is to foster interdisciplinary approaches to complex and relevant topics, to stimulate creativity, and to promote critical thinking towards museums. Lectures and courses are still important, but collective professional exercises like the MRG target developing an essentially collaborative culture among colleagues, where all can connect, learn together, and reach rapid, yet significant results.\(^8\)

**Author**

Blanca María Cárdenas Carrión is an ethnologist with a master’s degree on Science Communication. She is certified by JCOM Masterclasses on science centres and museums and she is now an associate professor at the National School of Anthropology and History (ENAH) in Mexico City. E-mail: etno23@hotmail.com.

**References**


\(^7\)According to the United Nations Educational, Scientific, and Cultural Organization [UNESCO, 2003], the intangible cultural heritage refers to oral traditions, language, performing arts, social practices, rituals, festive events, knowledge concerning nature and universe, traditional craftsmanship, and all kinds of human expressions transmitted from generation to generation, recreated by communities, and related to cultural diversity.

\(^8\)My sincere gratitude to Lorraine Williams, PhD, for the language corrections and useful comments.


How to cite