The teaching of History with the museum: educational practices in reflective processes

O ensino de História com o museu: práticas educativas em processos reflexivos

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Abstract: In this text we present reflections on the resonance of an educational practice in the teaching of History developed in a museum of the city of Belo Horizonte in the teaching of the Prehistory of Brazil. This educational and memory practice is understood as part of a process begun before the visit and that continues after the end of the visit, that is, the analyzes are connected to the dynamics established in the times that involve a museum visitation, that cross that environment and in dialogue Constant with the classroom. The effort undertaken aims to understand how the resonance of this educational practice mobilize several aspects that directly can contribute to another grammar of teaching history and memory teaching in museum environments and also to an understanding of continuing teacher education.

Keywords: History Teaching. Educational practice. School-museum relationship.

Resumo: Neste texto apresentam-se reflexões sobre as ressonâncias de uma prática educativa no ensino de História desenvolvida em um museu da cidade de Belo Horizonte no ensino da Pré-História do Brasil. Essa prática educativa e de memória é compreendida como parte de um processo iniciado antes da visita e que prossegue após o término dela, ou seja, as análises estão conectadas à dinâmica estabelecida nos tempos que envolvem uma visitação museal, que atravessam esse ambiente e em diálogo constante com a sala de aula. O esforço empreendido visa compreender como as ressonâncias dessa prática educativa
mobilizam diversos aspectos que, diretamente, podem contribuir para outra gramática de práticas de ensino de História e de memória em ambientes museais e, também, para uma compreensão da formação continuada de professores.

**Palavras-chave:** Ensino de História. Prática educativa. Relação escola-museu.

**Introduction**

> Experience, not truth, is what gives meaning to writing. Let us say, with Foucault, that we write to transform what we know and not to convey the already known. If anything encourages us to write is the possibility that this act of writing, this experience in words, allows us to be free from certain truths, so that we cease to be what we are to be something different from what we have seen. 

> Also experience, not truth, gives meaning to education. We educate to transform what we know, not to convey what we already know. If anything encourages us to educate is the possibility that this act of education, this experience in gestures, allow us to free ourselves from certain truths, so that we cease to be what we are, to be something other than what we have seen being.

Jorge Larrosa and Walter Kohan

This article, in the light of issues and problems indicated by Larrosa and Koran, aims to reflect and develop some perspectives of the teaching of History from educational practices promoted in the school-museum-school relationship developed by History teachers in basic education.

The aim is to reflect on the potential of these educational practices in the promotion of a more critical and reflexive teaching that can promote another interpretative grammar of the uses of the past from the museum institutions and in connection with the times of the educational practice: visit and post-visit.

For the purpose of analysis, we worked with the experiences of two teachers of basic education in Belo Horizonte who promote their educational practices in the museum of PUC Minas for the teaching of Prehistory of Brazil.

Relationships, experiences and formative processes will be focused in line with elements of the presuppositions indicated by Larossa and Kohan, for example, when they affirm and instigate to think that “if something encourages us to educate is the possibility
that this act of education, this experience in gestures, allow us to free ourselves from certain truths, so that we cease to be what we are, to be something other than what we have been.” (LARROSA and KOHAN, In: LARROSA, 2014, p. 5). In the same way that they enable and instigate a thought that "we educate to transform what we know, not to convey the already known" and that this experience "in gestures, allow us to free ourselves from certain" truths. “(LARROSA and KOHAN, In: LARROSA, 2014, p. 5)

Thus, it is possible to believe that trajectories and experiences would be highly significant for the educational process and not just the arrival or a final product elaborated or destined for the student body.

In this article, therefore, the attention was drawn to professionals in the exercise of their professions. That is, the focus of the study was directed to the educational praxis of teachers in ongoing formative processes facing the challenges of the practice of teaching history in the daily life of school based on teaching practices developed in the relation school-museum-school.

He was interested in the formative dimensions of this profession: critical, reflexive, relational, dialogic, sensitive, aesthetic and affective. Therefore, the choice of the school-museum-school relationship is not an occasional one, since it presupposes rational and irrational elements that can elucidate the challenges of the exercise of the profession, including enchantment, dream, pleasure, creativity, the unpredictability.

For the analysis of the field of research1, some theoretical contributions that gave support and elements for a greater understanding of the reality so complex that is processed in the educational acts and educational acts imbricated by the presence of the museum in relation to the pedagogical practices developed in the school.

Concepts of epistemologies of practice that seek to recognize the teacher as subject of his action, of his knowledge and of his teaching, as intellectual have been adopted - Giroux (1997) et al. - as a reflexive critic - Schon2 (1992,2000) Ghedin (2005), Pimenta (2005) and Libâneo (2005) - to structure the theoretical / epistemological dialogue of the analyzes of the practices followed.

Conceptions and paradigms that have been present in the discussions in Brazil for

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1 This text is fruit of part of our doctoral thesis titled: From educational practice to an education through practice: the teaching of history with the museum and with literature. This thesis was guided by Professor Júnia Sales Pereira of FaE / UFMG defended on March 26, 2016. Available at: http://www.bibliotecadigital.ufmg.br/dspace/handle/1843/BUBD-AA2J8L.

2 It is noteworthy that Donald Schon does not present his reflections on the specific formation of the teacher, but it is believed that this aspect does not invalidate his contribution in this field and, in addition, knowing the criticisms that his epistemology suffers, a dialogue was sought with the paradigms of the teacher as intellectual to overcome the possible limits of this epistemology.
some decades and which thus also confer legitimacy on their choices. The epistemologies of practice, which, despite presenting differences and criticisms mainly to the misappropriation of the concept of reflective professional, they, in dialogue with each other, provide an analytical field for the data collected and complement each other in a dialogue that values the teacher as subject, actor of his knowledge, his praxis and obviously of all cognitive, sensitive and aesthetic activity that concerns him.

This adoption makes explicit the concept of valuing experience and reflection in experience, that is, what Dewey called tacit knowledge and the valuation of professional practice as a moment of construction of knowledge that would come from the reflection, analysis and problematization of practice undertaken by the teachers themselves.

According to Pimenta (2005), the adoption of this type of analysis and/or epistemological conception highlights the indisputable contribution of the perspective of reflection in the teaching practice and comes to value the teaching profession, the knowledge of these professionals, the work done in a team and belief and conception that the school is also training space.

It is also emphasized that it is possible to understand and investigate this space of memory - the museum - and also of forgetfulness, beyond the mere complement or confirmation of what was seen in class. In this way, it is necessary to recognize that it has another spatial, visual and logical organization. Therefore, it can promote other experiences, not disconnected from all the preparation carried out prior to the visit and which continue to reverberate at the time of the visitation.

Therefore, it is believed that it can be an experience/crossing and a pedagogical practice that also, not exclusively, will promote an education for the sensibility, for a more critical and reflective posture of human presence in time.

It was also used, and always in dialogue with the field and other theoretical contributions, the notion/concept of Umberto Eco (1997) of Open Work. Notion and work that repurposes the concepts of communication, information, openness, alienation and others, and it is from such a recovery company that the original contributions of this author to the formulation of poetics about the opening of the work are initiated and founded. (CUTOLO, p. 8 In: ECO, 1997).

The concept of opening or Open Work proposed by Umberto Eco is the one with the greatest amplitude, since it is more varied and different the field of applications that he

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1 It is not only this element that gives legitimacy, the main thing is that the epistemologies of practice confer/consider another status to the teacher. They confer on it a prominent place and consider it an acting subject, a critic, reflective and autonomous in their actions and educational practices.
submits to the question. Umberto Eco (1997), in fact, maintains a "theoretical model" of "open work" that does not reproduce a presumed objective structure of certain works, but rather represents the structure of a fruitful relationship, regardless of the practical, of works characterized as "open".

Finally, for the purpose of the research, which gives rise to this article, it was considered as direct subjects the teachers of History that promote educational practices in the Museum of PUC Minas and, as indirect subjects, the students who have been experiencing the practices established both in their narratives and their productions from the practices observed and analyzed, but always from the intentions and teachers.

For this undertaking, the research that gave rise to this text was considered as the methodology as "path of thought" and the practice exercised in the approach to reality, trying to understand and carefully consider the nature of the object of study and its complexity. For this, an analysis of data based on: 1) Data collection - empirical research - in the educational sector of the museum; 2) Walking interview (in the museum) with the teachers involved in the process; 3) Observations from the field: school-museum-school (use of recordings and field notebook); 4) Interviews with teachers and museum professionals. 

As a clarification, it should be pointed out that the walker interview is a methodology that consists of interviewing the subjects of a particular research in the place or environment in which the same promotes their educational practices beyond the school space. In this case, the museum where they promote their practices of teaching History - Prehistory of Brazil.

To carry out the interview walker is elaborated a script of questions that are answered, in the practice space, walking through the museum, its niches and the potential that the environment can awaken and promote. It is also permitted a open space for participants to talk about their conceptions, ideas and possible work proposals.

This data analysis aimed to construct an analytical / descriptive framework - within the qualitative research conception - that could provide elements for the verification of the

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4 In this case, two History teachers who work in Belo Horizonte and develop educational practices in the PUC Minas Museum.

5 In school A, 5 classes were recorded after the visit to the museum. On 05/28 (2 classes); on 02/06 (1 class) and on 11/06/2001 (2 classes). In school B, in addition to the meeting with the teachers who were involved in the project: Science, English / Literature, Geography and History. Two classes were recorded. It should be noted that a teacher from the group of school B was accompanied in the activity of the Educator's Space on 08/08/2014, using a field notebook. School A was also observed at the museum visit on 04/23/2014 and school B on 08/20 and 08/27/2014.

6 The transcription of interviews for the thesis, and reproduced here in part, was carried out in a simple and oral text, without interference or treatment of the passage from orality to written language.
observed reality approach for understanding, reflection, perception and description of the possibilities made effective by the teaching practices mediated by this environment socioeducative (museum), meaning of an education in museum space that could move beyond the mere confirmation of was seen in the classroom.

Thus, it was tried to tune the methodology with the theoretical assumptions and with the field in question; aspects of the aesthetics, enjoyment and narratives of History teachers as critical and reflexive professionals were considered, but based on their conceptions of teaching - in relation to historical temporality and in relation to the structural issues of History teaching.

Context and field of research

Going to the field, in the case of the research that gives rise to this article, here also thinking about the different educational practices that teachers promote in their teaching during their careers, can be a moment of formulation of questions that lead to the process of elaboration of an investigation, the change of already established practices and a process of questioning of the pedagogical act itself.

The field and context of an educational practice are seen and thought as a body in tune and in constant relation. Being in the moment field, forming, is also being in close connection with the moment of formulating the practice and vice versa.

In the case in question, to promote the teaching of History more critical and postulate another perception of its existence as subjects and, especially, regarding the issue of temporalities in this process.

Thus, when the participants were asked, from their teaching experience, what contributions the PUC's Natural Sciences Museum promoted to approach the past and present relationship or the relation between temporalities, the following answers were obtained.

Teacher Margarida: I think that every exit from the classroom boys is already an apprenticeship because I believe in education beyond the walls of the school and the opportunity for them to go to a place where there is a collection as rich as the PUC museum.

I still have not believed what a coincidence and in fact, there are no comments about the boys gave. Many not known as well as the museum, many not known and those who are a problem for the classroom, an experience they had there. The objects they saw, the workshops they attended and I noticed a closer relationship with the story from the museum. (Excerpt from interview with
Teacher Rosa: The museum, any museum, or any space that brings a different experience than the classroom offers, it already promotes this temporality relationship, so the museum (sic) we are talking about a time very far away from the experience of the boys, far from the concrete. And the visit specifically to the Museum of Natural Sciences, it helps to return in this past so remote, even remote to History when they come back before what we call the timeline, which we call the history of Brazil and in that sense is a time travel for the boys, they managed to travel back in time through that experience. (COSTA, 2016, p.124) (Excerpt from interview with Professor Rosa on September 17, 2014, p.1) (Emphasis added).

The analysis of the answers of the teachers of History gives an opportunity to visualize and apprehend a lot of the experiences and pedagogical practices lived, and also, in this way, indicates the perception of the museum as a possible "open work" (ECO, 1997), by demonstrating the possibilities of richest and diverse reflections7.

Regarding the contributions of the museum, there is a highlight in Professor Margarida’s speech that every exit is already an apprenticeship and that her students, from this experience, have come closer to the discipline. These are indications of the students' return to the teacher at the time of the visit, and of a practice in a place unknown to their students and acting in a potent way for openness and other possibilities.

It is timely the consideration of the teacher who emphasizes that, in promoting educational practices in other environments that are mobilizing activities in the post-visit, it is illuminating, in a way, the existence of a critical and reflexive, dialogic practice that does not end only in the visit to a museum environment, there is also a change of posture in the classroom by the teacher himself during the process: the presence of the other in the teacher-student relationship and its discipline.

That is, educational practices of the teaching of history that have a power that extrapolates the act itself of the visit and reverberates in the school and probably in other spaces of conviviality. And in this relation of perceptions, crossings and experiences in a double-way (faculty-student), it is possible to identify a relation with the conceptions of the epistemologies of the practice that seek to perceive / conceive / recognize the teacher as subject of his action, his to know and to make teacher, as intellectual (Giroux, 1997), as critical-reflexive, (SCHON, 1992,2000), put before a situation of cultural learning marked by differentiated dynamics of the school.

7 The teachers did their practices with very different years/grades. The teacher Margarida with the students of the eighth year of Fundamental II and the teacher Rosa, with those of the sixth year of the fundamental II.
In the teacher's response, the museum's material and possibly affective, imagery and other elements are present, especially when it speaks of the experience they experienced, when they came into contact with the objects they saw and the workshops they participated in.

Within a similar logic, that of the material elements contained in the museum, and its relation with the question of concreteness and visualization in the teaching-learning process, the speech of Professor Rosa, when she emphasizes the question of temporalities, when the teacher narrates that any museum could contribute to this specific study of the field of history being, in this way, an approximate act of a time very distant from the experience of the students.

That is, the museum and its collections present, unlike the school and its pedagogical supports, such as textbooks, other forms of perception and learning of History. It is the experience based on aesthetics, on the object, which can be object-generating, according to Ramos (2004), that could emphasize and promote experiences, such as those signaled by Larossa and Koran (2014).

In this sense, experience also contributes because the museum can offer and give an opportunity to a concrete historical learning. According to Ulpiano Bezerra de Meneses (2005: 18), "the so-called" material culture "plays a decisive role in social production and reproduction. [...] Artifacts, for example, are not just products, but vectors of social relations. " He, the museum, within this logic, is only interested in objects because of meaning. And so he would have conditions of analysis and understanding and that no other platform in our society would match (MENESES, 2005, p.18).

Finally, another aspect highlighted in Professor Margarida's testimony is the question of going to the museum for the first time. Not only to know a museum, to know the collection, because the students of that school had access to the technical reserve of the Museum, a specific reserve of Paleontology, and also they were able to talk with the curator of the museum and author of the book that they read for the activity on the Prehistory of Brazil. This observation or emphasis of the teacher refers to a very important issue in the teaching and learning process of history, the perception of how science and knowledge is produced. It is not given, it is not natural. There is method, work, interpretation, conservation and other elements that the visit to the collection can potentiate in the study and teaching of history.

These observations go through the bias of the sensitive, the aesthetic and the collective imaginary and not only of the student body, because it was possible to see in these trails how much the museums enchant the teachers as well.
The focus is adjusted in this article to the perception that the teacher is not a mere reproducer of the reference sciences and does not approach museums only or simply because they want to confirm contents. Teachers possess knowledge, can develop autonomous processes in their practices and are considered intellectuals. But its intellectuality has nuances that incorporate intuition, imagination and sensations.

But, how is this museum? Where is it built? How is your expography presented? What is your collection? What potential can he, in dialogue with the pedagogical practices developed in the school, offer or amplify in the educational practice of teaching History of Brazil?

The PUC Minas Museum was founded in the early 1980s, therefore, a museum that is more than thirty years old and receives approximately 50,000 visits per year, according to management reports.

The PUC Minas Museum has great regional, national and international expression. It is located at Avenida Dom José Gaspar, 290, Heart Eucharistic District, at the PUC Minas Campus, in Belo Horizonte. It has three floors of exhibition, a wide open space where are the environments for workshops and snack area for visitors.

The museum brings together various collections, including paleontology, archeology, botany, birds, mammals, fish, insects, amphibians and reptiles. These collections, according to data from the Education Sector, indicated below, constitute a huge and valuable collection for the various branches of science, humanity and our identity constitution. The collection makes a total of 73,000 pieces of paleontology, 2,793 of mastozoology, 17,920 of herpetology and 2,322 of ornithology.

In addition to the quantitative aspects, it is necessary to point out that this museum develops several educational activities, which was considered as one of the criteria for choosing this space for research, such as the forest trail; the replicas of fiction; rock paintings; Night at the Museum; and the digging of fossils in the sandbox.

The museum also offers monthly training meetings with educators in its Education Sector, Educator's Space, as well as being in direct reference to the teaching of Brazilian Prehistory.

The museum also develops activities during vacation periods, such as the activity called Vacations in the Museum. This activity, held in January and July of each year, presents a series of options for visitors.

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8 It is one of the main collections of fossil mammals in South America.
10 For more details, see chap. 3 of the thesis: From educational practice to an education through practice: teaching History with the museum and with literature.
The program is varied and encompasses (1) toy building workshop, (2) the Age of Reptiles, with stroll through the museum, game of questions and answers about dinosaurs and reptile painting of miniatures of dinosaurs. There is also a specific activity involving the central characters of the Work The Boys of the Plain: Stories of an ancient Brazil\textsuperscript{11} and the most recent work of Professor Cartelle, The history of AUR and NIA (2012). This activity (3) is called A Prehistory with Aur and Nia.

The PUC Minas Museum is the only Museum of Natural Sciences of this size in Minas Gerais. It has three floors with double foyer for exhibition, in addition to the technical reserves, the Educational Sector and the CTO - Operational Technical Center that also functions as an office, dermestário\textsuperscript{12}, space for maceration, molds and replicas workshop, taxidermy workshop and also serves as a technical reserve of the museum. It is also space dedicated to the construction, restoration and others referring to the replicas on display.

The Educational Sector brought to the research an enormous amount of data and sources, still primary, since they had never been used by any researcher of the museum, university or external. Data related to the various activities in the sector, such as the educational worksheet.

Data on the teachers who attended the museum and were previously in the Educator's Space to prepare their visit, clarify their objectives, know the potential of the museum, among others. These data cover the periods of 2010, the year of beginning of the worksheet completion, 2011, 2012 and 2014\textsuperscript{13}.

For example, like this excerpt from one of the analyzed worksheets of a municipal school in Belo Horizonte, in which a History teacher who visited on August 8, 2014 and was in the Educator's Room on August 4, students of the sixth grade. The items were: a) What is the main purpose of the visit? b) In what did Educator's Space contribute to you as a professional?

\begin{itemize}
\item[a)] Project development before the visit. Deepening the theme worked in the classroom.
\item[b)] It will unveil a new form of learning.
\end{itemize}

\textsuperscript{11} Work used by teachers in the practices established with the museum. The work portrays all objects on display on the second floor of the museum, making it one of the most visited spaces by history teachers.
\textsuperscript{12} CTO dedicated space for dermis or dermis care: layer underlining the epidermis.
\textsuperscript{13} For more details, see chap. 2 of the thesis: From educational practice to an education through practice: teaching History with the museum and with literature. In the year 2013, due to a fire, there was no activity in the museum.
Very thoughtful to think about these answers and especially, in the practices that could have been developed in those perspectives. Perspective of thinking that the museum visit is part of a project that has already begun; therefore, the visit is not treated as a bureaucratic activity, walk or rest for teachers. There is a perspective of the museum as a mobilizing power for other issues in the project of this teacher.

In this sense, it is an extended perception of the teacher that the museum is a space of knowledge, but, clearly, it differs from the school. Probably for presenting a materiality different from the school environment, for the present oneiric, for the diverse possibilities of reflections, enchantment and displacements of identity. After all, the museum portrays the Brazilian Prehistory.

That is, it seems that the museum presents itself to the teachers connected to the issues indicated by Larossa and Koran (2014) and that these perceptions allow to think about teachers who promote educational practices in museums in a reflective perspective, not merely mnemonic and/or bureaucratic.

Undoubtedly, illegible items, lack of information on some of the records were also present in this process of constitution of the museum-school field, making it difficult, in a way, to survey other practices.

According to Diniz (2011), the museum was instituted on July 3, 1983 and was initially set up in a building attached to the ICBS / Biological Sciences of PUC. He, at this time, was about 150 square meters and the collection was very different from the current times.

The museum operates on several fronts and research areas. In this sense, clarifying its activities, objective and functions, the institution makes available to the public the following reports,

Created in 1983, the Natural Sciences Museum PUC Minas develops scientific, educational and cultural activities. The Museum is an interdisciplinary university space that complements its extension of services to the community.

The mission of the Museum is to promote the interest of visitors in the natural sciences, through exhibitions, education and research. It is the Museum’s objective to preserve the natural, historical and cultural heritage of Brazil.

In the collection of the Museum is one of the main collections of fossil mammals in South America, as well as collections of the current Brazilian fauna of mammals, birds, reptiles and amphibians, with special emphasis
on the cerrado species. The Museum team develops research in the areas of paleontology, zoology and nature conservation. (Available at:

The PUC Minas Museum has permanent or long-term exhibitions spread over its three floors. On the first floor, we have the exhibition The Age of Reptiles. Space that enchants at the entrance for the grandeur of the pieces on display, for the possible direct encounter with the imagination of our children as well as adults and the specific theme of this museum.

This exhibition features five copies of South American dinosaurs, pterosaurs (flying reptiles) and a large crocodile, discovered in Brazil and in different parts of the world.

In this floor, two species of pterosaurs of the genus Anhanguera, found only in Brazil, are found. Also on display is another fossil that attracts a lot of attention, the head of Purussaurus brasiliensis, which originated in Acre and dates back 10 million years, measuring about 15 meters and considered the largest crocodile ever discovered.

It is also possible to see, on the first floor, the Carnotaurus, carnivorous giant 80 million years old.

They are, as pointed out by Chagas and Storino in the foreword to Revista Musas (2007, p.6), in relation to museums,

[...] windows, doors and portals; poetic links between memory and oblivion, between self and other; political ties between yes and no, between individual and society. [...] They are good for exercising thoughts, touching affections, encouraging actions, inspirations, and intuitions.

On the second floor, we have the permanent exhibition of the Pleistocene, especially miner. It is on this floor of the museum that we find the replicas of the fossils present in the play The Boys of the Plain. We also have a space dedicated to the works and the life of Peter W. Lund, space that receives the title: Peter Lund: Memories of a Naturalist.

One of the highlights of the exhibition, on the second floor, is the replica of Luzia, one of the oldest human records ever found in the Americas and the Giant sloth, a character in Cartelle's works and the interactive panel of the Minas Gerais Pleistocene.

It is a significant space in the educational practices developed by teachers of History in the museum. Place where many perceptions can be mobilized, the sensitive and the
imaginary that can be awakened in the readers of the book and also in other visitors. The presence of the game of lights, the replicas of fossils that inhabit the imaginary of society can be potencies for questions of the teaching of History of an ancient Brazil and a Brazil today. A game of lights and a game of temporalities.

Before monitoring the schools to the museum, a research activity called a walking interview was developed, along with the group of teachers participating in the research of the two schools, as already pointed out. During the visit to the spaces of the museum questions and provocations were made to this group of teachers about the possibilities of the work of teaching History in that environment.

For example, when asked about the possibilities of creation and development of educational activities by the History teacher in that first niche (Espaço Lund, second floor), we obtained the following answers and reflections that indicate the potentiality and perspectives of the work in other environments educational and, in particular, museums.

**Teacher 2:** *To close, the coolest is to understand the importance of history, even for the formation of Brazilians, for the human being in general, in the special case of Peter Lund, to bring this story to light for us the question of our memory of Prehistory, the construction of historical subjects from who was (sic) those inhabitants, who built this Brazil before Europe, it is possible to take the importance of the historical subject from Prehistory.* (COSTA, 2016, p. 87) (Walker Interview, 2013, p. 5) (Emphasis added).

**Teacher 2:** *I also imagined, how it was built on (sic) the knowledge of Brazil, from the look of the European. In the nineteenth century the knowledge of Brazil is much of the paintings, of the naturalistic writings, and this helped to show in Europe what Brazil was like.* (COSTA, 2016, p. 87) (Walker Interview, 2013, p. 4) (Emphasis added).

**Teacher:** *The first thing I get with boys in 6th year is something that there is an interconnection between the sciences let’s call it like that, no science can stand alone. Even if you think medicine at some point will rescue the history that is our area, to study the history I need other sciences, at that specific stage we still have specialties that are indispensable to understand. [...] (COSTA, 2016, p. 87) (Walker Interview, 2013, p. 4) (Emphasis added).*

It is noticeable how this activity permeates very interesting questions of the formative process of teachers, their conceptions of history and the clarity of the process of knowledge
construction. From a perception of interdisciplinarity existing between the sciences, from a conviction of the importance of the teaching of history as a formative element of human identity.

For these reasons, educational practices in museums promote a two-way street in which teachers and students reflect in multiple directions and experiential issues of utmost importance for their own constitution as a human being. For example, when one of the participants points out how important the question is, in educational practice in museum settings, to "clarify for us the question of our memory of Prehistory, the construction of historical subjects."

From when, the same deponent, also informs that works in environments or niches like that inside the museum of PUC Minas can provide the perception that "(sic) is the people understand the importance of history even for the formation of Brazilian nodes."

According to Libâneo (2005), in dialogue with Donald Schon (1992), reflexivity, present in the analyzed sections, is a characteristic of conscious rational beings; all human beings are reflective, and everyone, therefore, would think about what they do. Reflexivity for authors would be an act of "self-analysis" about their own actions that can be performed for themselves and others.

The idea that is captured by Libâneo, worked by Schon and Zeichnner, is that the critical-reflective teacher can think in its practice and develop the reflective capacity on its own action. It would be the framework described by Schon (1992) on professional development. Development that would occur in practice through the posture of inquiry and reflection on one’s practice at different moments, but in connection. What Schon (1992) postulates is that the knowledge that emerges in the situations of analysis of practices can be described and could give shape to "theories" of action. It would be what Schon (1992, p.31) calls know-in-action.

Speaking and/or implementing a description of the school-field will necessarily lead to the presentation of the teachers participating in the research and, in general, of other members of these institutions.

The field-school was not only considered a space dedicated to data collection, but, within a broader field conception, it was thought of as a valuable opportunity for observation, self-reflection and observation of practices that were established, contact with the different didactic and educational materials mobilized and produced among other aspects in the effectiveness of the observed and analyzed practice.

This field made it possible to observe in a concrete way the various actions taken and mediated by the teachers in relation to the visits to the PUC Minas museum that were
developed.

The teacher Rosa\textsuperscript{14}, from school A, and teacher Margarida, from school B, work in the same segment, Fundamental II, but not in the same series. Professor Rosa has been teaching since 1984, for more than 30 years. He holds a degree in History from the Federal University of Minas Gerais and also a Master’s degree from the Institute of Education of Minas Gerais.

Professor Margarida graduated in 1989 in the former Fafi-BH, so for 28 years she has been working in basic education, specifically in the school researched since 1992.

Professor Rosa works in the morning in a private school in Belo Horizonte, located in the center-south region, in the Serra neighborhood. This teacher does not only visit the PUC Minas museum in the promotion of her educational practices, but she has the habit of promoting, throughout the school year, many activities in other environments with the classes of Elementary School II with which she works: exhibition environments, public spaces and artistic presentations. This teacher has been attending the PUC Minas museum for at least twelve years.

Rosa is the only history teacher at the school. In the afternoon, she works in a municipal public school, but in the position of coordinator.

Professor Margarida, in the afternoon, works in a municipal public school in Belo Horizonte, located in the Pampulha region, west of the city, and teaches classes for the 8th grade. In the morning, eventually, he makes a fold in the same teaching net.

Professor Margarida has been attending the PUC Minas Museum for about six years, always in a work integrated with the discipline of Sciences. In relation to other socio-educational spaces and environments, it also develops its practices in theaters, squares, exhibitions, cinemas and colonial cities, such as Sabará/MG; Nova Lima/MG and Ouro Preto/MG.

As already pointed out, school A is a private school in Belo Horizonte that works with the segments of fundamental I and II. In this school, the class of sixth year was accompanied, with about ten students in the visitation to the museum and in the classes after the visitation.

At school B, in addition to the meeting in the school itself with the teachers who were involved in the Brazilian Prehistory project, there were two classes/seminars on 09/22/2014 in classes D and E (45 minutes each class). These activities were recorded.

\textsuperscript{14} Given the determinations of COEPE/UFMG the names used in the research and, in this text, are fictitious. We adopted names that represent flowers in which we identify with the characteristics (general) of the teachers participating in the research.
School B is a municipal public school in Belo Horizonte and offers Youth and Adult Education (night); Early Childhood Education and Elementary Education I and II (daytime). The research work, in this school, was developed with two groups of the eighth year, with approximately 25 students in each.

Two seminars by Professor Margarida with the help of Professor Acacia (Literature / English) were also accompanied in this school; and also went to school B, on 08/20 and 09/17/2014, before the seminars and visits (each group visited at different times) to the museum for a conversation with the group of teachers who were involved in the project: THE BRAZILIAN PRE-HISTORY, namely: History, Science, Geography and English / Literature professors.

Thus, these activities in the field schools, in contact with the teaching staff of each one and with the students added together constituted a fundamental part of this journey that took place between 2014 and 2015 in the constitution of the research.

**History teaching and museum education**

“[...] it is no longer a matter of visiting the past, but of animating studies on the past tense, in relation to what is lived in the present. [...] Studying history does not mean knowing what happened, but broadening our knowledge about our own historicity. Knowing that the human being is a being, field of historically conditioned possibilities and openness to change.” Francisco Régis Lopes Ramos. (2004)

Once again, the fundamental questions of History and its teaching are presented, based on the reflections of Ramos (2004) in particular, on teaching History through museums. Not a misplaced and merely mnemonic teaching, or as Paulo Freire would say, banking. It would be a revisiting of the past with the eyes focused on the present, and, as the author states with great propriety, “to know that the human being is a being, a field of historically conditioned possibilities and an opening for change.”

That is, it is an educational practice in museum environments that can promote other possibilities and openings / experiences for an experience of construction and constitution as a historical subject.

As, for example, in another situation, in the classes assisted and recorded in the post-
visit, it was possible to observe the themes of the museum, the teaching of History, the enjoyment of literature of scientific dissemination and of moving around in other environments was also contemplated by the teachers. In this situation, Professor Margarida instigates her students to reflect on the relation of the process she has done in the classroom, with the use of a video, the book and the visit to the museum.

That is, the teacher seeks to promote a reflection on the meanings of that practice experienced by its students. And goes beyond, promotes a reflection involving diverse structuring elements.

The teacher emphasizes the times of the process of pedagogical practice engendered or imbricated, considering that it can leave marks, promote meetings and/or disagreements.

**Teacher Margarida:** In a word, what relation do you have, which (sic) you can imagine, take from the museum, from the documentary that we saw, that documentary “the mystery of the blue well”

**Student:** Is it to say what we think?

**Teacher:** No, a word that sums up that documentary we saw, that the team found fossils of the giant sloth, the museum, and the book. A word. A word that joins all three.

**Student:** History
**Student:** Archeology
**Student:** Knowledge
**Student:** Fossil
**Student:** Wisdom
**Student:** Intelligence
**Student:** Competence
**Student:** Creativity
**Student:** Imagination

(COSTA, 2016, pp. 128-129) (Excerpt from seminar at school B - class D - on 09/22/2014, p.9-10) (Emphasis added).

The meanings attributed by the students were very significant, taking into account that the teacher elaborated a very complex question and that it aroused and / or promoted very interesting answers for the analysis and the research.

The teacher’s provocation demanded that the answer be formulated in a single word. That is, the whole can form a one. The complex steps taken in this practice form one unit.
They go beyond this class, present a perception of extended pedagogical practice and that instigates the participants to mobilize diverse and interconnected knowledge in other moments and educational spaces.

And, even more so, to the perception that the experiences are very much aligned with the presuppositions of a reflexive and critical History teaching that seeks to promote in students the possibility of being knowledge builders.

This type of question that is not answered in the book read, in the video assisted and not in the visit could only be formulated a response after personal considerations in the light of the knowledge of the respondents themselves. That is, it is a process of teacher training in the pedagogical action that undertakes in its practices.

In this sense and in dialogue with the presuppositions of Henry Giroux (1997, p. 18), it is necessary to consider teachers as "transforming intellectuals, who deliberately undertake a socially transforming practice in opposition to the exercise, under the guise of political neutrality, mysterious intelligence or specialized knowledge." It seems that it is exactly this type of action developed by Professor Margarida in the featured section.

The words and concepts chosen by the students address several facets of the practice undertaken and explain how the senses can be diverse and potent in this type of pedagogical practice. The times imbricated in each moment awoke notions and senses of an experience that probably effected displacements in time, in the perceptions of the constitution of science History and of human life. Words such as knowledge, competence, fossils, archeology, intelligence, and history, among others, can make explicit this assertion.

Examples that constitute the constitution of a work that "open" (1997, p.9) can promote a diverse possibility of developing ideas that offers a book and, in this case, interface with the museum and inserted in an educational practice.

"Open work" that presents itself in the perspective of the forms or possibilities of various organizations from the analysis of the interpreter, the participant subject, which will be understood or even concluded, as for example in a single term that gives meaning to the experience lived, "Which will be finalized by the interpreter when they are aesthetically pleasing". (ECO, 1997, p. 39).

The terms chosen, the other responses given to the activities carried out at the time of the visit, also present this framework of richly diverse meanings, but all in line with the experience, are produced from several constituent elements of this theoretical framework and also from the own ontology of the human being.

However, Ramos (2004) makes an alert. It would not be enough for the exhibition to assume this critical character. It would be necessary to develop programming with the aim
of sensitizing the visitors to this new grammar and in this way, to promote greater interaction with the museum. (RAMOS, 2004, p. 20-21). What is intended is the development of an education in a deeper perspective, which adopts a posture of critical perceptions about being in the world and how to act on it.

It is precisely from this reflection that Ramos (2004) leaves to affirm that the educational practice, which has in the museum an interface, must, necessarily, begin in the classroom. Start in the classroom with play activities, for example. This perspective was corroborated and adopted as a research conception. It should start in the room and not wax in the visit.

The post-visit moment in connection with the other times of the same: pre-visit and the visit make up the logic of educational practice that was adopted in this research trail and in the comings and goings that the research, that gives rise to this text, allowed to effect and in syntony with the concept of educational practice adopted here.

Finally, to think of museums in this grammar would also mean thinking about it from our time. Of the present lived. For without this anchoring, Ramos (2004, p.21) believes that there will be no means of constructing knowledge about the past.

Adopting this logic in all connection and dialogue with the epistemological assumptions, it is possible to think, therefore, that its potential for teaching and for teaching History could provoke new educational practices, also collaborate for an initial and continuous formation of teachers - that on a visit and / or preparing for it may be formed\(^\text{17}\), they can learn new practices, to question those already adopted, and also, to be surprised with the learning and the possibilities uncovered with each new work.

Museums are social and memory institutions. They are also, learning institutions, since they offer multiple possibilities of reading the world and social realities, being able therefore to know, to invent and to create this world. If museums are then training environments - both for those who work professionally and for those who visit and make use of them - they can also educate communities, enhance their ways of relating to social memory and their heritage. (PEREIRA and SIMAN, 2009, p. 3) (Emphasis added).

\(^{17}\) It is believed that the "space of the educator", an activity promoted by the educational sector of the PUC Minas Museum that receives the teachers monthly, clarifies the possibilities of the space, promotes the exchange of experiences, presents to the teachers the workshops that the museum can promote new reflections on its practices in educators. This space - in the conception adopted here - can also provide a continuous formation for many professionals who pass through there throughout the year.
Pereira and Siman (2009, p.7), alluding to the relational question of educational practices through museum institutions, clarify that the relational nature of educational action in museums or pervaded by them "is one of the ways to conceive the relation school museum - as a two-way street, where they are educators in different places, but who can make their educational actions converge (or not) "which was also taken into account in the research carried out. That is, in the same direction adopted in this analysis.

In this logic, teachers reported their perceptions and conceptions about the museum, why take their students to this space to study and learn History.

**Teacher Margarida:** I think the museum is living history, when you are talking about the story in the book, the most the boy sees is an image that is imprinted there and he cannot look with a passionate look, so, I think that when he goes to a museum, any museum, mainly history museum and he sees something that belonged to the past, I think that changes his look that many times is a look addicted only in engravings, only in magazines, only in textbooks, I think it greatly enhances his knowledge of this visualization and sometimes even play it, which I think is an interesting thing there from the PUC museum that the boys could play the replica of Luzia, wanted to play the fossils. I think that touch, it makes a lot of difference, they wanted to take pictures and they could take pictures, So they interacted very directly with the museum (COSTA, 2016, p.132-133) (Excerpt from an interview with Professor Margarida on October 8, 2014, p. 4) (Our Griffin).

**Teacher Rosa:** The museum design is very funny, because in common sense, everybody talks, museum is a place of old thing, so, good museum is not an old thing, but it is a great place to study History, that History does not have to be necessarily old.

*What I build as a basis for prehistory and then I'm talking about children I'm not talking to adults or young people I'm talking to teenagers and many pre-teens.*

*What it is to do the tripod, ne, space, time and society. So for space, time and society I have to establish relationships between this, for it to transit in time that not necessarily the time of it, most of the time is not of his time.*

So it is difficult to travel at a different time than yours, in a place different from yours, with societies different from yours, you have yours, that of the other and you have to go through all this. 132-133) (Excerpt from interview with Professor Rosa on September 17, 2014, p.4) (Emphasis added).

The selected excerpts address numerous questions that the teachers present in their
reflections on items and central elements in this perception of the practices undertaken
and, mainly, in the analysis of the complexity of the educational practice that is not limited
to the moment of action or pedagogical intervention.

When referring to each participant in his own way, the museum "is life" and "is not a
place of an old thing [...] a good museum is not an old thing, but it is a great place to study
history, history it does not have to be necessarily old. "It is possible to perceive a certain
dialogue with the assumptions of Ramos (2004). In other words, it seems that it is no longer
visit to the past by the study of the past, but to animate the studies of the past in relation to
what is lived in the present.

It seems that it is no longer a matter of knowing what simply happened, but knowing
what happened and amplifying the knowledge about the human collective, about being in
the world, that is, about historicity. The museum allows the touch, the sensibility, to move
to another perception of the objects and their relations with time and with itself. Once
again, the potentialities of this educational space are highlighted in the experiences made
there.

Fact signaled in this passage that informs, “I think that touch, it makes a lot of
difference, they wanted to photograph and could photograph. So they interacted very
directly with the museum”.

That is, it is possible to think that there were, on the part of the teachers, a subversion
of the expographic logic, a reassembly or extension of what the curators may have thought.
All this was via the aesthetic of the sensible, of the possibilities effected by an "open work"
in the present time.

In another extremely significant section, we can observe one of the other
potentialities that the museum can offer in relation to educational practices, especially in
relation to the issues and concepts foundational to the teaching of History when Professor
Rosa states, "What is do the tripod, ne, space, time and society. So for spa
time and society I have to establish relationships between this, for it to transpose in time that not
necessarily the time of it (sic), in most cases it is not of his time ".

Thus, it is possible to identify a relation with the conceptions of epistemologies of the
practice that seek to perceive / conceive / recognize the teacher as subject of his action, his
knowledge and teaching, as intellectual (Giroux, 1997), as critical-reflective, SCHON,
1992,2000), given the situation of cultural learning marked by differentiated dynamics of
the school.

However, it is feasible to believe that they can even learn in different ways, but not
outside the relation and the propositions often instigated by the school educational
practice. Thus, the meanings that conceive of the museum as a static space, consecration of icons of society, that was encapsulated in time, could not provide a more relational practice. It would not be a socio-educational, two-way street, an "open work", a museum attentive to the issues of the present and promoting an exaltation of a distant and heroic past that does not reflect in the present. A museum that is in the realm of absolute certainty, a museum that does not open space for dialogue with the world and is a fixed screen.

Within the logic adopted here, it was also possible to perceive what and how much the teachers reflect on the whys of their choices, their practices and from the educational act itself. A reflection, an intellectual stance in the moment or the displacements of the own practices when the teacher clarifies, especially in relation to the question of the teaching of History and the understanding of the time / temporalities, that, "What is what I construct as base for Pre -History and then I’m talking about children I’m not talking to adults or young people I’m talking to teenagers and many pre-teens."

This is how it is possible to identify in the words of Henry Giroux (1997: 18) that it is necessary to regard teachers as "transforming intellectuals, who deliberately undertake a socially transforming practice as opposed to exercise, under the guise of political neutrality, of mysterious intelligence or specialized knowledge."

The teacher demonstrates a clear perception of the work she does, for who does it and why she does it. She also demonstrates clarity when she indicates that she builds her practice with objectives focused on that student group, on that content, and even more on the specifics of the age groups with which she works.

Following the testimony and reasoning, the participant continues to explain how the teaching practice she seeks to achieve her goals of critical history teaching, the necessary and extremely important knowledge of structuring concepts of History and its teaching: "space, time and society."

It is the same direction pointed out in Larrosa and Kohan (2014) when they affirm that education can be an act of mobilization of transformations and not of the already known. That what encourages education is "the possibility that this act of education, this experience in gestures, allows us to free ourselves from certain truths, so that we cease to be what we are, to be something other than what we have seen being".

This is a conception of history teaching that includes teachers as intellectuals, as reflexive-critical and professionals involved with sensibilities, who often seek to promote their educational practices in other settings and by other grammars, not only for fulfill procedures, but because the pursuit of the pursuit is constitutive of their profession.
Speech analysis also points to other issues relating to teacher making, such as the issues surrounding the format of the class and its casting. It also awakens to the possibilities that learning is a being in the world and with the world, let this possibility be awakened in the students, especially, as the teacher reports, in public school students.

The teacher also explains the issue of public spaces, the perception that other environments promote learning and this practice goes really beyond what was seen in the classroom. It can awaken other possibilities, other visions of the world and displacements around the world.

Thus, the perspective of a practice promoted by teachers, who adopt the presuppositions of the epistemologies of the practice, could, being attentive to these questions, give voices to the participating subjects, promote more interactive and dialogic practices and, above all, promote questions that effectively move the participants from the mere decorative act to the reflexive action of a more polyphonic being in the world.

That is to say, it would be the adoption of an intellectual and reflexive posture in front of a world that is multiple, polyphonic and of the perception that to mediate the teaching of History through the museum can also embrace this posture. From making available various integrations and interactions, from the notion of "open work", be it museal or literary, or both, although unfinished, can promote multiple and multiple results, but in tune. (ECO, 1997, p. 63).

Obviously, this is based on feasible readings, within the context of that "work" and, in this case, within the teaching practices that mobilized their actions mediated also by the museum environment and in relation to the experiences of each participant, not only in that practice teacher, but of all the experiences that she can mobilize within established practice.

Thus, as pointed out by Pereira (2008), the educational work in the museum can then be conceived as open work, in the sense that Umberto Eco tells us - “that its meanings are unstable, presuppose the diverse implicated in the passage of the public [... ] making pluralized senses preliminarily placed on the expographic plane”. It is also Pereira (2008) who informs us that "the educational work is for these reasons a polyphony, according to Bakhtin (1992), operating through the dissolution of the unidirectional sense and making hatch interpretative forms as a condition of permanence of the museum beyond its small universe of things ex post ". (PEREIRA, 2008, p. 14-15).

In this way, to think that the realm of absolute certainty, of history as the master of life, of a museum as a fixed screen would not enter into this practice, and thus there would be the opportunity to exercise / think/reflect and seek a teaching of history that would not
encapsulate time and would open to the students ways, thresholds and bridges for other possible reflections, but now, in the realm of fruitful uncertainties, which, from the adoption and promotion of a “multiple memory” in the teaching-learning process of History in socio-educational environments / museums, would work towards a conception of critical and social museum education.

Final considerations

The development of research work that gives rise to this text based on educational practices of teaching History developed by teachers in Belo Horizonte in relation to the Museum of PUC Minas and in the study of Brazilian Prehistory in relation to the reading of a work of scientific dissemination allowed the realization that these practices can be potent educational processes and extrapolation of the processes lived in classrooms, in connection with them, but beyond what was seen in the room.

It was also possible to show that this educational practice enabled the participants, students, an experience that goes through other paths of access to knowledge, through another perspective of education. As, for example, an education through the sensitivity to the plastic and aesthetic language, of the playful and literary that the teaching narratives allowed to reveal, since mobilizers of its practices.

Traversal and experience can promote the understanding of the world where history, memory and heritage can be interpreted in other ways, thus opening the threshold for other understandings of human society and education. In this sense, it was possible to perceive the imbrications and the relations of the times: pre-visit, visit and post-visit in the educational practice, also of the spaces, since it was possible to perceive that the teachers amplify the perception about the reasons of the memory considering them not unique to the museum. It is worth emphasizing how much the research reveals the authorial dimension of the profession since the narratives contain reflective, autobiographical and dialogical contents.

It was also revealed that this practice, this usufruct to the cultural patrimony of humanity and Brazil, in many cases, is only experienced by a portion of our society via school. That is, many Brazilian students only go to some museum Space or "safeguarding" memory when teachers / schools promote such practices.

It was also possible to verify that this practice can allow and / or reveal how much the teachers involved reflect on their educational actions, how their teaching objectives relate
to the assumption that being in the world requires space for reflections, promotions of praxis that move their students of passivity.

Another issue that was evident in the analyzes was the impact of the practices in the dialogical interactions between teachers and students. In many moments of the classes analyzed, this action / interaction between the student body and the teachers was perceptible. Often interactions led to reflections, questioning, and conclusions of those involved in the actual act of dialogical interaction. It was not a mechanical practice, of answers ready and decorated by each participant.

In the narratives of the teachers it was possible to verify the importance that they confer to the practices outside the school, not without the school, but in other environments significant for the work with the memory. It was also possible to identify that the promotions of these practices, both in school A and B, were promoted with the full support of the directions and the collective teaching involvement in such practices.

It is believed that the data and analyzes indicate a confirmation of certain assumptions, on the part of the literature, that there are other possibilities of usufruct of the museums in the practice of the teaching History. This belief is supported by the analysis of transcribed speech and classroom practice in the perception of an amplification of the compression of the very notion of History and of the change in the relationship between the student body and the discipline itself.

The work also revealed the possibility of realizing that the teaching practices developed in the teaching of History allow the teachers involved, regardless of whether the practice was articulated by a collective of professionals or by only one teacher, to reflect on their continued formation.

In this way, it was also possible to perceive that the actions mobilized in all the times involved in the activities fall within the perspective and / or notion of educational praxis, a perception that is based on the action of the direct subjects, which also supported in the speeches, gestures and perceptions of the subjects indicate how teachers are actors, subjects of their knowledge, of their praxis and obviously of all cognitive activity that concerns them.

Educational praxis that has as main articulating element the non-dichotomy between theory and practice and its direct relation with the real, of the subject that acts on a certain field or matter. Praxis does not exclude the dimensions of the sensitive, the aesthetic and the dream that perpass not only the practical activity itself, but also the training and the teaching performance in its complexity.

This finding is in line with the assumptions assumed in the research to consider and
recognize the teacher as subject of his action, his knowledge and his teaching, as intellectual and as critical-reflective in the educational practices of teaching History with the museum and with the school.

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