Word of thanks

First of all, I would like to thank Yannick Siebens, for giving me the opportunity to do a work placement at the Royal Belgian Institute of Natural Sciences. I have learnt a great deal from you, and I appreciate it very much that you let me be a full member of the team and took my work so seriously. I really enjoyed working together with you.

I also want to thank Charlotte Degueldre, Françoise Antonutti, Isabelle Van Loo, Donatienne Boland and Kareen Goldfeder for being such nice colleagues and for creating such a warm and welcoming work environment.

A very BIG BIG thank you goes to Valerie Konings, for helping me such a great deal with my survey and research – I appreciate it enormously. Thank you also Nicolas Van Audenhove, for your help with my survey, for all your thesis-related advice and for the pleasant company during lunch break. I hope your new job will be as fun and interesting as this one.

Thanks also Kaat Scheerlinck, for helping me with my survey and for going to the library every time I needed a book. I don't know what I would do without you.

And last but not least, I owe a big word of thanks to Reinoud Magosse. Your advice and feedback really helped improve the quality of this survey and have kept my research on the right track all along. It was nice getting to know you – I always enjoyed our pleasant conversations.

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Research paper

The survey that is presented in this paper was conducted in the context of a work placement at the communication office of the Royal Belgian Institute of Natural Sciences (RBINS) in Brussels.

0. Introduction

The subject of this research paper is a survey into the new house style of the Museum of Natural Sciences. Through this research, we hope to gain a better insight into the clearness, transparency and effectiveness of the Museum's communication and advertising. We will particularly focus on the Museum's current logo and the way in which the Museum's official name is presented in their communication and printed advertising, and on the problems that could arise out this presentation style.

This subject was suggested by Mrs Yannick Siebens, who works as a press officer at the Museum's communication office and has experienced over the years that the Museum is often confused with other museums, and that the Museum's official name does not always ring a bell, even though many people know and have already visited the Museum. She wondered if people, when looking at one of the Museum's posters, would recognize the logo and would associate it with the right museum. This is a complex question, because it is difficult to determine the exact reasons for the confusion with f.e. the Africa Museum in Tervuren, and trying to resolve it entirely would reach beyond the scope of this paper. We decided to focus on one aspect of the problem and to investigate whether or not people find it easy to 'read' the Museum's posters, whether they link the logo to the right museum, and whether they can deduce from the poster the Museum's official name.

In the first chapter of this research paper, we will provide some more details on the background of this problem and on the transition from the original visual style to a new, more modern, but perhaps also less transparent house style. In the second and third chapter, we will define our research question and formulate a hypothesis on the results that we expect to find. In the fourth chapter, we will explain the methodology of our research, and in the fifth chapter, we will discuss and analyze the results. Based on those results, we will formulate some conclusions, and we will end by summing up some recommendations.
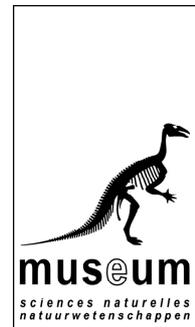
1. Background and context

The background of the transition from the original house style to the new one was disclosed to us by Michèle Antoine, who still works at the Institute's Museology department and who was back then one of the driving forces. This transition, that dates back to 2003, involved a change of logo and a stricter set of rules for the Museum's printed advertising. Previously, the logo was rather static and traditional, and there was a serious lack of coherence in the visual style of the posters and flyers – you would not have thought that they were all issued by the same organization. As a consequence, the Museum had no real brand image. The introduction of a new house style had to resolve these problems and lend a more modern and dynamic appearance to the Institute's communication and advertising. The Museum had to become a brand, with its own logo and distinct visual style, and an identity that set it apart from other museums.

The Museum as a brand. Nowadays we consider it normal that a cultural institution defines a brand image for itself, but in the cultural sector, the marketing-oriented approach is quite a recent phenomenon. Margot A. Wallace, who has written several books on the subject of museum marketing, summarizes it nicely: "It seems like a long time ago that marketing meant a nice brochure and a little advertising. We were businesslike, but the emphasis was on the "like". Today, of course, with competition coming from so many cultural and leisure areas, we need more. Creating a distinctive brand, and maintaining that brand (...)" (Wallace 2006, ix).

But what is a brand? The American Marketing Association defines a brand as "a name, term, sign, symbol or design, or a combination of them intended to identify the goods and services of one seller or group of sellers and to differentiate them from those of other sellers" (Kotler & Keller 2010, 181). Let us start with the name. Contrary to similar museums like Naturalis in Leiden and Experimentarium in Copenhagen, the Institute did not want a 'trendier' name for its museum. The museum was part of the Institute, and not vice versa, so it was decided that they would stick to the official name and that the museum was to remain the 'Museum of Natural Sciences' – and not, for example, the 'Natural History Museum', like its London, Paris and Madrid counterparts. One particular problem with this name, however, is that it does not really have a catchy ring to it, which is a serious disadvantage for a brand name. Therefore, it was decided that they would retain 'Museum of Natural Sciences' as the official name, but would use only the word 'Museum' in the logo, so that it could function as a short and easy-to-remember brand name for a museum that is not just *a* museum, but *the* Museum – with a capital. But here is the catch: in Dutch, a museum is simply a museum, but in French, the neutral form is *musée*, whereas *muséum* always refers to a natural history museum. This means that 'Museum', as a brand name, is much more transparent to a

francophone audience than to a Dutch-speaking audience. We will get back to this point in our discussion of the survey results.

Then, the logo. The first design consisted of a drawing of a dinosaur skeleton, standing upright, with the words *museum* and *natuurwetenschappen/sciences naturelles* underneath it. This logo was used for about two years, and then replaced by the current logo, that was designed by an external agency. In the new logo, the 'Museum' brand name is shifted to the foreground, and the skeleton is replaced by a walking dinosaur in a teardrop form. Compared to the previous logo, it looks more modern and dynamic, and its style is much more distinct and idiosyncratic. The choice for the dinosaur was not as obvious as it seems, because the logo was to be used for both the Museum and the Institute, but shows only one aspect of the Institute's collections and activities. Some people who worked only for the Institute were not entirely happy with that, but since the dinosaurs remain the Museum's most important selling point, this visual was decided upon and is still in use today.

Along with the new logo came a whole set of new rules and guidelines for the design of the posters and flyers. Over the years, these rules were changed a little at some points, but the design has generally remained the same throughout, so that there is now a certain uniformity in the Museum's printed communication. One evolution that is quite striking, however, is the reduction of the amount of practical information on the posters. On the older posters, the official name is still mentioned in its entirety, along with the address and URL. On some of the more recent posters this is the case as well, but in general, there has been a gradual but constant reduction in the amount of information that is provided on the posters. This is clearly visible in the poster for the new temporary exhibition *Senses!* (see appendices 3a and 3b): apart from the logo and the website's URL, the audience receives no other clues as to the identity, name or location of the museum hosting the exhibition. In view of the Institute's intention to establish the Museum as a brand, this is a natural evolution, but we wonder whether it is not going too far – after all, the Museum uses its posters as a means of advertising and informing the public on new exhibitions.

In what follows, we will examine the Museum's new house style and try to identify the existing problems.

2. Research question

As we mentioned in our introduction, the subject of this paper is a survey into the visual style of the Museum's printed advertising, whose main elements are the dinosaur logo and the website's URL. We are particularly interested in the way in which the Museum's official name is presented on their posters, and how this presentation style influences the 'readability' of these posters and helps building a certain brand image.

Our main questions are:

- How 'strong' is the Museum's logo, especially compared to those of other Brussels museums? Do people recognize it and can they link it to the correct museum? Do they know the Museum's official name? Do they know the Museum at all? If they confuse it with another museum, which one?
- Do people understand and see the link between the logo and the url? Can they deduce the Museum's official name from the posters? Does the position of the url have an influence on the readability of the posters?
- What is the influence of people's language, place of residence and education level on their ability to read the Museum's posters?
- Do people know what the Museum has to offer? If they have already visited it, do they remember what they've seen? If they have not yet visited it, do they know what to expect? Is the Museum primarily associated with its dinosaur collection, or with f.e. stuffed animals?
- What do people think of the logo? Is it transparent in their opinion, and does it have a modern feel?

When you do research on a subject like this, you always have an opinion on what you think the result of your research will be. We did start this research with certain preconceived ideas and expectations, and it would be interesting to confront these with the actual results of the survey. In the next paragraph, we will formulate some hypotheses on the results we expect to find.

3. Hypothesis

We expect that the results will show that the logo is quite strong and that it reinforces the Museum's informal name ("Dinomuseum") at the expense of the official name. The official name will probably be not very well-known, and a lot of people will think that the Museum is simply called the Natural History Museum. We expect that the logo will be easier to understand for francophone respondents than for Dutch-speaking respondents, and that people living in Brussels will be most familiar with it.

We also expect that the respondents will have more trouble deducing the Museum's official name from the posters when they only have the logo and the url to rely on, and that people who do not know the Museum will find it difficult to 'read' the poster.

4. Methodology

In order to find the answers to the questions listed in chapter 2, we opted for a quantitative approach and conducted a survey with 196 respondents. We decided to limit the population of this survey to people belonging to the Museum's target audience, and not the whole of the Belgian population. The reasons for this decision are threefold:

- the representative sample required for such a survey would be way too large for the people, means and timeframe that were available for this research;
- in 2004, an external agency (Ipsos) already conducted a large-scale survey into the reputation, image and visitor profiles of Belgium's federal museums with a representative sample of the whole Belgian population;
- it is not very interesting for the Museum to know whether, for example, 17-year olds with little interest in culture or science recognize the Museum's logo, because these people are not part of its target audience anyway and are not the people who are being addressed by the Museum's advertising.

Those people who do belong to the Museum's target audience, are mainly families with (young) children who visit a museum or a cultural event every now and then, but also frequent museum visitors and grandparents with their grandchildren. That means that for this survey, the best option was a non-probability quota sampling, because the selection of the sample elements was subject to certain restrictions (i.e. belonging to the Museum's target audience) and because we wanted the sample to be a representative reflection of the Museum's visitors.

The sample aims to be representative with respect to the respondent's area of residence and their age category. Since the survey was mainly conducted in the month of July, we use the visitor data of this month as a reference point (see appendix 6).

Originally, we wanted to use the respondents' postal codes for the selection of our sample, but this selection turned out to be not statistically significant (see appendix 5) and thus not representative.

Postal code	Visitors (July 2011)		Survey sample	
	Freq.	%	Freq.	%
1000-1299 (Brussels)	8.106	41,4	76	38,8
1300-1499 (Walloon Brabant)	1.054	5,4	9	4,6
1500-1999 (Flemish Brabant – West)	1.211	6,2	14	7,1
2000-2999 (Antwerp)	2.175	11,1	25	12,8
3000-3499 (Flemish Brabant – East)	1.061	5,4	14	7,1
3500-3999 (Limburg)	707	3,6	9	4,6
4000-4999 (Liège)	1.116	5,7	8	4,1

	Freq.	%	Freq.	%
5000-5999 (Namur)	870	4,4	6	3,1
6000-6599 (Hainaut – East)	595	3,0	1	0,5
6600-6999 (Luxemburg)	226	1,2	1	0,5
7000-7999 (Hainaut – West)	899	4,6	7	3,6
8000-8999 (West Flanders)	643	3,3	9	4,6
9000-9999 (East Flanders)	940	4,8	17	8,7
TOTAL (Belgium)	19.603	100,0	196	100,0

Table 1: Sample: number and percentage of visitors and respondents per province

In order to solve this, we reduced the number of categories to 4: Brussels, Brabant (Flemish + Walloon), Flanders and Wallonia. Now the selection is statistically significant (see appendix 5):

	Visitors (July 2011)		Survey sample	
Region	Freq.	%	Freq.	%
Brussels	8.106	41,4	76	38,8
(Flemish + Walloon) Brabant	3.326	17,0	36	18,4
Flanders	4.465	22,8	61	31,1
Wallonia	3.706	18,9	23	11,7
TOTAL (Belgium)	19.603	100,0	196	100,0

Table 2: Sample: number and percentage of visitors and respondents per region

With respect to the respondent's age, we only had visitor numbers for 4 age categories: children younger than 5, children between 5 and 17 years old, adults and seniors (>65). Since children could not participate in this survey, our selection consisted of only two categories:

	Visitors (July 2011)		Survey sample	
Age category	Freq.	%	Freq.	%
Adult (18-64)	11.888	93,7	175	89,3
Senior (65+)	794	6,3	21	10,7
TOTAL (18+)	12.682	100,0	196	100,0

Table 3: Number and percentage of visitors and respondents per age category

This sample is statistically significant.

The survey was conducted between the end of June and the beginning of August 2011, on the following locations:

	Respondents	
Location of the survey	Freq.	%
Plazey (Elizabethpark, Brussels)	20	10,2
Gulden Ontsporing (Steenstraat, Brussels, July 11th)	20	10,2
Feest in het Park (Warandepark, Brussels, July 21st)	31	15,8
Wetenschap in het Paleis (Royal Palace, Brussels)	17	8,7
Technopolis (Mechelen)	35	17,9
Cinquantenaire Museum (Brussels)	3	1,5

Army Museum (Brussels)	26	13,3
Musical Instruments Museum (Brussels)	44	22,4
TOTAL	196	100,0

Table 4: Number and percentage of respondents per survey location

We deliberately opted for museums and events that attract more or less the same target audience as the Museum of Natural Sciences. Plazey Festival, the Gulden Ontsporing and Feest in het Park are all large-scale, accessible and free events that are popular among families with young children. The Royal Army Museum, the Cinquantenaire Museum and the Musical Instruments Museum rank all three among the Brussels museums with the highest visitor numbers. The Army Museum is always free, the entrance fee to the Cinquantenaire Museum is not very expensive either, and to the MIM we went on the 21st of July, when the entrance fee was 1 euro for everyone, and again on the first Wednesday afternoon of August, when all federal museums are free. Technopolis was an obvious choice too, because it targets almost exactly the same audience as the Museum, and Wetenschap in het Paleis is a temporary exhibition for children, set up by Technopolis and Belspo in the Royal Palace every year in the summer period, when the Palace can be visited for free.

The survey was conducted face-to-face, by four different poll-takers. We introduced ourselves by saying that we were students who conducted a survey on Brussels' federal museums (so that we would not give away the answer to our first two questions) and that the survey would take no longer than five minutes. This approach proved to be effective, as almost no one refused to participate.

The survey consisted mainly of questions with preformulated answers, so that that the poll-takers simply had to tick a box and could not influence the answers too much. After we had collected the answers of 196 respondents, we processed and analyzed the data with the software programme SPSS 16.

5. Results and analysis

Even though we limited the number of questions in the survey to what we thought was strictly relevant, the analysis of the results still provides us with so much information that it is impossible to discuss everything. The cross tabulation possibilities are virtually endless, which means that we are forced to make a selection. We chose to discuss only those things that seemed most relevant to our research and to the Museum.

5.1. The logo

The first question of the survey assesses the quality and transparency of the Museum logo and aims to quantify the respondents' familiarity with it. Since these percentages become more meaningful when they can be compared to a relevant reference point, we also included in this question the logos of five other popular Brussels museums [1].

Frequency tables

First, the respondents were given a sheet with the logos of 6 Brussels museums on it (see appendix 2) and were asked which of these logos they recognized. The reasoning behind this question was that a good (museum) logo should 'make sense': its visual should correspond to what it promotes and should be transparent to anyone who knows the product (or museum) behind the brand. We assumed that a logical and transparent logo would be more easily remembered and recognized than an abstract or complicated logo.

The results seem to confirm this:

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[1] Ranking of Brussels museums according to number of visitors (based on numbers from 2009):
1. Royal Museums of Fine Arts – Ancient and Modern Art: 333.686
2. Museum of Natural Sciences: 319.445
3. Royal Museums of Fine Arts – Magritte (same logo as no. 1):   279.906
4. Royal Museum of the Armed Forces and of Military History: 180.000
5. Belgian Comic Strip Center: 174.691
6. Royal Museums of Art and History – Cinquantenaire Museum: 156.417
7. Royal Museums of Art and History – Musical Instruments Museum: 136.589
8. Royal Museum for Central Africa: 85.619

The logo of the Royal Museum of the Armed Forces and of Military History was not used in the survey because it is too similar to that of the Cinquantenaire Museum.

These official numbers were provided by the federal government's Audience Observatory ("PublieksObservatorium van de Wetenschappelijke Federale Instellingen").

	Do you recognize this logo?					
Answer	**MIM**	**Nat. Sciences**	**Fine Arts**	**Africa**	**Cinquant.**	**Comic Strip**
Yes	38,8	64,3	20,4	74,0	19,4	32,1
No	61,2	35,7	79,6	26,0	80,6	67,9

Table 5: Do you recognize this logo? (All museums, in %)

The high score for the Africa Museum is no surprise: the logo is very transparent, so many people will indicate that they recognize it. In almost all cases, the respondents pointed at this logo first. Of course, that does not mean that all these respondents have actually seen this logo before; it only demonstrates that the logo clearly communicates the brand 'Africa Museum' and that people who know this museum will immediately see which museum is represented by this logo.

The good news is that the logo of the Museum of Natural Sciences scores quite high too: 64,3% of the respondents claim to recognize it. That is 25,5% more than the Musical Instruments Museum's score, which is next in rank. This means that about two third of all respondents can link the logo to a museum they know or have already heard of. Whether this is the right museum, we will test by means of the next question.

The least transparent logos of this test are those of the Royal Museums of Fine Arts and of the Cinquantenaire Museums, which are recognized by only one fifth of the respondents. The more abstract character of these logos clearly affects their transparency and recognizability.

When the respondents said that they recognized a logo, they were asked if they also knew the name of the corresponding museum. The answers to this question again allowed us to measure the transparency and readability of these logos. We also compared our results to those of the 2004 Ipsos survey (see appendix 7), to check whether there were any discrepancies. The population of the Ipsos survey (the whole Belgian population; 9% of all respondents living in Brussels) does not correspond exactly to the population of our survey (families with children and individuals who visit museums or cultural events in Brussels; 40% of all respondents living in Brussels), but the percentages of people who know the museums should be roughly the same.

First, the results of the MIM logo:

	Musical Instruments Museum		
To which museum does this logo belong?	**Freq.**	**% of 'Yes'**	**% of all respondents**
Musée de la musique	2	2,6	1,0
Muziekinstrumentenmuseum/ Musée des instruments de musique	65	85,5	33,2
Does not know/remember the name	9	11,8	4,6

Table 6: To which museum does this logo belong? (MIM, frequency and percentage)

The MIM logo was recognized by less than half of the respondents, but those who did recognize it (38,8% in total), were almost always able to give the correct name. That means that this logo was mainly recognized by people who already knew this museum and knew that the 'MIM' in the logo represented the Musical Instruments Museum. 33,2% of all respondents could link this logo to the correct museum; this percentage corresponds roughly to the 25% who indicate that they know the MIM in the Ipsos survey. The 8% difference can easily be explained by the fact that 40% of our respondents lives in Brussels, and that part of our survey was conducted in the MIM itself.

The results for the logo of the Royal Museums of Fine Arts look quite different:

To which museum does this logo belong?	Royal Museums of Fine Arts		
	Freq.	%	% of all respondents
Koninklijk Museum/Musée Royal	15	37,5	7,7
Koninklijke Musea voor Schone Kunsten/ Musées Royaux des Beaux-Arts	11	27,5	5,6
BELvuemuseum/Musée BELvue	3	7,5	1,5
Paleis voor Schone Kunsten/ Palais des Beaux-Arts	2	5,0	1,0
Other	4	10,0	2,0
Does not know/remember the name	5	12,5	2,6

Table 7: To which museum does this logo belong? (Royal Museums of Fine Arts, frequency and percentage)

The logo of the Royal Museums of Fine Arts was recognized by only one fifth of all respondents. This is a low score, especially because this museum has the highest number of visitors of all Brussels museums. Moreover, 37,5% of those who claimed to recognize the logo thought that it belonged to a/the royal museum, and only 6,6% of all respondents knew that this logo belonged to a museum of fine arts. That is a big discrepancy with the Ipsos survey, where 63% of all participants knew the Museums of Fine Arts. There is clearly something problematic about this logo: the crown visual does not match with the character of the museums it represents, so the logo fails to communicate its brand.

The logo of the Africa Museum, on the other hand, communicates its brand very well:

To which museum does this logo belong?	Royal Museum for Central Africa		
	Freq.	%	% of all respondents
Afrikamuseum/Musée de l'Afrique	135	93,1	68,9
Congomuseum	2	1,4	1,0
Does not know/remember the name	8	5,5	4,1

Table 8: To which museum does this logo belong? (Africa Museum, frequency and percentage)

The Africa Museum's logo was (always quickly) recognized by 74% of all respondents, and almost all of these people were able to give the correct name. This is not very surprising, as the logo really

gives it all away. The transparent character of the logo also explains the discrepancy with the Ipsos survey, where only 46% of the respondents said to know the Africa Museum.

The Cinquantenaire Museum faces the same problem as the Royal Museums of Fine Arts:

To which museum does this logo belong?	Royal Museums of Art and History: Cinquantenaire Museum		
	Freq.	%	% of all respondents
Jubelparkmuseum/ Musée du Cinquantenaire	20	52,6	10,2
Musée de l'Armée	3	7,9	1,5
Koninklijk Museum voor Kunst en Geschiedenis	1	2,6	0,5
Other	3	7,9	1,5
Does not know/remember the name	11	28,9	5,6

Table 9: To which museum does this logo belong? (Cinquantenaire Museum, frequency and percentage)

The logo of the Cinquantenaire Museum was recognized by one fifth of all respondents; half of these people knew to which museum the logo belonged. The abstract design of the logo (which represents the Cinquantenaire monument's three arcades) is probably again the most important explanation for this low score, and also for the discrepancy with the score of the Ipsos survey, where 45% of all respondents knew the Royal Museums of Art and History.

The Belgian Comic Strip Center does somewhat better:

To which museum does this logo belong?	Belgian Comic Strip Center		
	Freq.	%	% of all respondents
Stripmuseum/Musée de la B.D.	46	73,0	23,5
Kuifjemuseum/Musée Tintin	14	22,2	7,1
Does not know/remember the name	3	4,8	1,5

Table 10: To which museum does this logo belong? (Belgian Comic Strip Center, frequency and percentage)

The Comic Strip Center's logo was recognized by one third of all respondents. Of them, 73% linked the logo to the correct Museum. The other 22% thought it belonged to the Tintin Museum (which is actually called the Hergé Museum and is located in Louvain-la-Neuve), which is not surprising, considering the shape of the logo. Here, we cannot compare, because the Comic Strip Center was not included in the Ipsos survey.

The results for the Museum of Natural Sciences contain both positive and negative elements:

To which museum does this logo belong?	Museum of Natural Sciences		
	Freq.	%	% of all respondents
Museum voor natuurwetenschappen/ Muséum des sciences naturelles	52	41,3	26,5
Natuurhistorisch museum/ Musée d'histoire naturelle	30	23,8	15,3
Dinomuseum/Musée des dinosaures	17	13,5	8,7
Prehistorisch Museum/ Musée de la Préhistoire	6	4,8	3,1
Natuurkundig Museum	4	3,2	2,0
Wetenschappelijk Museum/ Musée scientifique	2	1,6	1,0
Other	2	1,6	1,0
Does not know/remember the name	13	10,3	6,6

Table 11: To which museum does this logo belong? (Museum of Natural Sciences, frequency and percentage)

A positive element is that two third of all respondents claim that they recognize the logo. Less positive is that of these people, only 41,3% know the correct name. That was to be expected, as the Museum's official name is less obvious and more abstract than that of the Musical Instruments Museum or Africa Museum, but it shows that there is still room for improvement when it comes to communicating the Museum's brand. Another positive element, however, is that even though many people do not know the official name, most of the respondents who recognize the logo have a correct idea of the Museum's concept, i.e. a natural history museum. It seems that the logo's visual matches the Museum's concept quite well, but that it fails to communicate the not-so-catchy brand name.

Here, there is no big discrepancy with the Ipsos survey, where 47% of the respondents indicated that they knew the Museum.

Overall, the logo of the Museum of Natural Sciences scores quite good compared to those of the other most visited Brussels museums. Many people recognize it and are able to link it to the right (type of) museum, so that surely is a good start.

We will now take a closer look at the influence of certain variables on the respondent's ability to recognize the Museum's logo and to remember or deduce its correct name.

Contingency tables

Until now, we have simply examined the absolute and relative frequencies of the various answers, without distinguishing between different types of respondents. In more ambitious market research

projects, however, it is custom to define social profiles for different groups of respondents who have certain (clusters of) characteristics in common. The typology of these respondent profiles is often inspired by sociological research and encompasses characteristics such as gender, age, social class, education level, and so on. In their report on cultural participation in Flanders, Lievens, Waege & De Meulemeester give an overview of all variables that are used in sociological research to explain differences in cultural participation; these include education, parental environment, profession, gender, age, stage of life, place of residence, nationality, religion or philosophy of life, and several others (Lievens, Waege & De Meulemeester 2006). Most of these variables were also included in the 2004 Ipsos survey, and were used to divide the respondents into 4 categories, each with their own attitude towards and habits of cultural participation. It was tempting to try and do the same in this research, but the sample was too small to allow for a division into mutually exclusive subcategories. We therefore chose to simply focus on a couple of relevant variables and to try and measure their influence on the survey results. These variables are not necessarily all sociological variables; factors like the language of the respondent and whether or not he or she has visited the Museum already can play an important role as well.

Already visited

One of the first questions we asked ourselves was whether the fact that a respondent had already visited the museum would influence his or her ability to recognize the logo and to link it to the correct museum. One of the characteristics of a good logo is that it is easy to remember and recognize, so it is interesting to know how good the Museum's logo scores on this characteristic.

	Have you ever visited the Museum of Natural Sciences?		
Do you recognize this logo?	**Yes**	**No**	**Total**
Yes	83,5	29,0	64,3
No	16,5	71,0	35,7
Total	100,0	100,0	100,0

Table 12: Cross tab: "Have you already visited the Museum of Natural Sciences?" x "Do you recognize this logo?" (in %)

These results are statistically significant (see appendix 5). What immediately strikes us here, is that 83,5% of all respondents who have already visited the Museum recognize the logo. That is a remarkably good score, and it means that people who already know the Museum, will find it easy to recognize the logo (and link it to the Museum) when they see it in the context of a poster. Of the people who have not yet visited the Museum, 29,0% claims to recognize the logo, which is not bad either.

The following contingency table shows the answers of the respondents when they were asked to give the name of the museum to which this logo belonged:

To which museum does this logo belong?	Have you already visited the Museum of Natural Sciences?		
	Yes	No	Total
Museum voor natuurwetenschappen/ Muséum des sciences naturelles	34,6	11,6	26,5
Natuurhistorisch museum/ Musée d'histoire naturelle	22,8	1,4	15,3
Dinomuseum/Musée des dinosaures	11,0	4,3	8,7
Other	7,1	7,2	7,1
Total	<u>75,6</u>	<u>24,6</u>	<u>57,7</u>
Does not know/remember the name	24,4	75,4	42,3

Table 13: Cross tab: "Have you already visited the Museum of Natural Sciences?" x "To which museum does this logo belong?"

These results are statistically significant (see appendix 5). Again, they show a clear difference between the respondents who have already visited the Museum and those who have not. But what is most striking here, is that only 1 out of 3 respondents who have visited the Museum knows the Museum's official name, and that almost 25% of them cannot come up with any name at all. This illustrates what we already mentioned earlier: the official name is quite abstract and difficult to remember, even for those who perfectly know what kind of museum it is (cf. the 22,8% score for "Natuurhistorisch museum/Musée d'histoire naturelle").

Language

Another variable that is very relevant to our research subject is the language of the respondents. In our chapter on the background and context of this survey we already mentioned that the logo is more transparent for French-speaking people than for Dutch-speaking people, because the French word *muséum* always refers to a natural history museum. By crossing the respondents' language with their responses to the question "To which museum does this logo [= logo of Museum of Natural Sciences] belong?", we can get to know whether and how much this variable influences the respondent's ability to 'read' the logo. The results of this cross tabulation are statistically significant (see appendix 5).

To which museum does this logo belong?	Language of the respondent		
	Dutch	French	Total
Museum voor natuurwetenschappen/ Muséum des sciences naturelles	15,4	36,2	26,5
Natuurhistorisch museum/ Musée d'histoire naturelle	14,3	16,2	15,3
Dinomuseum/Musée des dinosaures	11,0	6,7	8,7
Other	11,0	3,8	7,1
TOTAL	<u>52,2</u>	<u>62,5</u>	<u>57,7</u>
Don't know	48,4	37,1	42,3

Table 14: Cross tab: Language x "To which museum does this logo belong?" (Museum of Natural Sciences, in %)

It appears that there is indeed a difference between the answers of the French-speaking and the Dutch-speaking respondents. As we expected, the French-speaking respondents are able to answer this question more often than the Dutch-speaking respondents, and also know the Museum's official name more often, because the meaning of the logo is more obvious to them. If they give another answer, it is often the most logical alternative, i.e. "Musée d'histoire naturelle". Dutch-speaking respondents, on the other hand, prefer both "Natuurhistorisch museum" and "Dinomuseum" as an alternative to the official name, and give more diverse answers, f.e. "Natuurkundig museum", "Wetenschappelijk museum". These results seem to suggest that the Museum logo is indeed easier to 'read' for francophones than for Dutch-speaking people.

Place of residence

Another factor that might influence the respondents' knowledge about the Museum is the distance at which they live from it. Research has already shown that the distance between someone's place of residence and the location of a cultural activity (or museum, in this case) influences their participation in cultural activities (Lievens, Waege & De Meulemeester 2006; Ranshuysen 1999). Also, people living in big cities tend to participate more often in cultural activities than average (De Haan & Knulst 2000). Our results seem to confirm that more or less:

To which museum does this logo belong?	Respondent's place of residence				
	Brussels	**Brabant**	**Flanders**	**Wallonia**	**Total**
Museum voor natuurwetenschappen/ Muséum des sciences naturelles	35,5	27,8	9,8	39,1	26,5
Natuurhistorisch museum/ Musée d'histoire naturelle	19,7	16,7	9,8	13,0	15,3
Dinomuseum/Musée des dinosaures	6,6	5,6	13,1	8,7	8,7
Other	7,9	2,8	11,5	0,0	7,1
TOTAL	<u>69,6</u>	<u>52,8</u>	<u>44,3</u>	<u>60,9</u>	<u>57,7</u>
Don't know	30,3	47,2	55,7	39,1	42,3

Table 15: Cross tab: Place of residence x "To which museum does this logo belong?" (Museum of Natural Sciences, in %)

These results are statistically significant, but 6 cells (30%) have an expected count of less than 5, so the results may not be entirely reliable. Hence, we will not discuss them in detail, yet we would like to note here that language probably is an important factor of influence here as well.

Frequency of museum visits

We also expect that the survey results will be influenced by the frequency with which a respondent visits museums or exhibitions, and that frequent museum visitors will know the Museum's official name more often than people who hardly ever visit a museum.

	How often do you visit museums or exhibitions (on average)?				
To which museum does this logo belong?	**<1x / 5 years**	**<1x / year**	**1-3x / year**	**>3x / year**	**Total**
Museum voor natuurwetenschappen/ Muséum des sciences naturelles	0,0	21,7	27,8	31,7	26,5
Natuurhistorisch museum/ Musée d'histoire naturelle	0,0	8,7	14,4	22,2	15,3
Dinomuseum/Musée des dinosaures	7,7	13,0	10,3	4,8	8,7
Other	0,0	0,0	6,2	12,7	7,2
TOTAL	<u>7,7</u>	<u>43,5</u>	<u>58,8</u>	<u>71,4</u>	<u>57,7</u>
Don't know	92,3	56,5	41,2	28,6	42,3

Table 16: Cross tab: "How often do you visit museums or exhibitions (on average)?" x "To which museum does this logo belong?" (Museum of Natural Sciences, in %)

The results are statistically significant, but 40% of the cells have an expected count of less than 5, so the results are not entirely reliable. Nevertheless, the tendency illustrated by the results is so clear that we can safely assume that there is a positive correlation between the frequency with which people visit museums and their ability to remember or deduce the Museum's correct name upon seeing the logo. Interestingly, people who visit a museum less than once per year are almost three times more likely to reply "Dinomuseum/Musée des dinosaures" than people who visit more than 3 museums per year. It seems that people who are not really familiar with the museum sometimes simply combine the two elements in the logo that they recognize: the dinosaur plus the word "museum".

Education level

Another variable of which we expected that it would influence the respondents' ability to 'read' the logo, is their education level. The results turned out to be not statistically significant, however, so we cannot use them here.

5.2. The poster

The second question had to test how well the respondents would be able to deduce the Museum's official name when the logo was shown in the context of a poster. We wanted to know whether people see and understand the link between the logo and the website's URL on the Museum's posters, and whether the position of the URL has any influence on the 'readability' of the logo. To test this, we asked the Museum's graphic designers to make an alternative version of the poster for *Senses!*, a new temporary exhibition that will open in October. We then divided the survey sample in two test groups, who were each shown one version of the poster.

By which museum was this poster issued?	Version of the poster		
	A	B	Total
Don't know	34,7	31,6	33,2
Dinomuseum/Musée des dinosaures	3,1	2,0	2,6
Museum voor Natuurwetenschappen/ Muséum des Sciences Naturelles	57,1	56,1	56,6
Other	5,1	10,2	7,7
Total	100,0	100,0	100,0

Table 17: Cross tab: version of the poster x "By which museum was this poster issued?" (in %)

Surprisingly, the difference between poster A and B is not statistically significant. Contrary to what we expected, the position of the website's URL does not influence the respondent's ability to deduce the Museum's official name from the poster. In both cases, more than half of the respondents can give the correct name, whereas one third indicates that they do not have a clue.

When they were only shown the logo, 26,5% of all respondents were able to give the Museum's official name; when shown the poster, this becomes 56,6% of all respondents. That is certainly much better, but there is still some 40% left who apparently do not see the link between the logo and the URL.

The next question is whether people who have already visited the Museum are better capable of deducing its official name from the poster than people who have not. The answer is yes – the results are statistically significant – but again we see that even people who have already visited the Museum are often not capable of deducing its official name from the poster. It also should be noted here that, while conducting the survey, we experienced that many respondents had to look at the poster for quite a long time before they could give the correct name. That is of course not reflected in our results – we did not measure the time it took the respondents to find the answer – but it is certainly relevant to our research.

By which museum was this poster issued?	Have you already visited the Museum of Natural Sciences?		
	Yes	No	Total
Don't know	24,4	49,3	33,2
Dinomuseum/Musée des dinosaures	3,9	0,0	2,6
Museum voor Natuurwetenschappen/ Muséum des Sciences Naturelles	65,4	40,6	56,6
Other	6,3	10,1	7,7
Total	100,0	100,0	100,0

Table 18: Cross tab: "Have you already visited the Museum of Natural Sciences?" x "By which museum was this poster issued?" (in %)

To conclude, we can say that it is clear that the 'readability' of the poster is not very good and that the link between the logo and the URL is often not understood. That is problematic, because this poster is supposed to be used for advertising and should therefore clearly communicate the brand it promotes. This is certainly a point that ought to be improved.

5.3. Last visit to the Museum

We have used the percentages of respondents who have and have not visited the Museum in several cross tabs already, but we have not yet discussed these percentages independently from other variables. We give an overview of them here, because it gives an idea of how well our respondents are acquainted with the Museum.

Answer	Have you ever visited the Museum of Natural Sciences?		
	Freq.	%	% of all respondents
Yes	128		65,3
Individual visit	9	7,0	4,6
Family trip	87	68,0	44,4
School trip	26	20,3	13,3
Other	6	4,7	3,1
No	68		34,7
Total	196		100,0

Table 19: Number and percentages of respondents who have and have not visited the Museum

Answer	When did you last visit the Museum of Natural Sciences?		
	Freq.	%	% of all respondents
Less than 1 year ago	37	28,9	18,9
Between 1 and 4 years ago	46	35,9	23,5
Between 4 and 10 years ago	13	10,2	6,6
More than 10 years ago	32	25,0	16,3
Never	68		34,7
Total	196	100,0	100,0

Table 20: Moment of last visit to Museum of Natural Sciences – numbers and percentages

We see that almost half of all respondents have visited the Museum in the last 4 years, after the renovation and the re-opening of the Dinosaur Gallery. Only one third of all respondents has never visited the Museum at all. Of those respondents who visited the Museum, 68,0% did this in the context a family trip. This confirms that the locations where we conducted our survey attract a lot of people who are part of the Museum's target audience – cf. the following contingency table:

Location where the survey was conducted	Have you already visited the Museum of Natural Sciences?					
	Yes		No		Total	
	Freq.	%	Freq.	%	Freq.	%
Plazey	17	85,0	3	15,0	20	100,0
Gulden Ontsporing	12	60,0	8	40,0	20	100,0
Feest in het Park	26	83,9	5	16,1	31	100,0
Wetenschap i/h Paleis	8	47,1	9	52,9	17	100,0
Technopolis	18	51,4	17	48,6	35	100,0
Cinquantenaire Museum	2	66,7	1	33,3	3	100,0
Army Museum	20	76,9	6	23,1	26	100,0

	1	2	3	4	5	6
MIM	24	54,5	20	45,5	44	100,0
Total	127	64,8	69	35,2	196	100,0

Table 21: Cross tab: Location of the survey x "Have you already visited the Museum?" (absolute and relative frequencies)

These results are statistically significant (see appendix 5). What strikes us immediately is the high percentage of respondents who have already visited the Museum at the Plazey and Feest in het Park festivals. These events attract a lot of Brussels families with young children, which are an important part of the Museum's target audience. Locations that attract a more Flemish audience have lower percentages of respondents who have already visited the Museum – apparently, the geographical distance to the Museum plays a certain role here.

5.4. The Museum's collections

We have already discussed the Museum's logo and its name, but we also wondered what people would associate the Museum or the name "Museum of Natural Sciences" with. We therefore asked whether they knew what type of collections are on display in the Museum of Natural Sciences, and – if they had not visited it yet – what they expected to find there. We let the respondents answer spontaneously and wrote down the order of their answers.

	Do you know what is on exhibition at the Museum of Natural Sciences?					
Answer	**1st answer**	**2nd answer**	**3rd answer**	**4th answer**	**5th answer**	**Total**
Dinosaurs	56,6	7,7	1,0	0,0	0,0	65,3
(Stuffed) animals	12,8	10,7	3,1	2,6	0,0	29,2
Insects	1,0	2,6	2,6	2,6	0,5	9,3
Shells	1,0	0,5	1,0	1,5	1,0	5,0
Whales	1,0	5,6	4,1	0,0	0,0	10,7
Prehistoric finds	2,0	5,1	2,0	0,0	0,0	9,1
Spiders, arthropods	0,0	0,5	1,0	0,5	0,0	2,0
Minerals	0,0	2,6	5,1	2,0	1,0	10,7
Evolution	2,0	4,7	3,1	0,0	1,0	10,8
Other	3,6	9,7	4,6	3,1	0,0	21,0
TOTAL	<u>79,1</u>	<u>49,5</u>	<u>27,6</u>	<u>12,2</u>	<u>3,6</u>	
Don't know	20,9					

Table 22: What is on exhibit at the Museum of Natural Sciences? (in %)

As we expected, the Museum is still primarily associated with its dinosaur collection: no less than 56,6% name this as their first answer, and 7,7% and 1,0% give it as a second and third answer. In total, two third of all respondents mention the dinosaurs.

Next in rank are the stuffed animals, which are mentioned by one third of all respondents. 12,8% gives this as their first response.

79,1% of all respondents can name at least one thing that is on exhibit in the Museum; about half of the respondents can name at least two types of collections, and 27,6% can also mention a third thing.

5.5. Opinion on the logo

Finally, we also asked the respondents their opinion on the Museum's logo. They were asked to give it a score out of 5 for the following criteria:

-   transparence: is it clear what kind of museum this is?
-   modernity: does this logo have a modern feel, or do you find it rather old-fashioned?
-   attractiveness: do you find this logo attractive?

The results look like this:

	Do you find the Museum's logo…	
Scores from 1 till 5	**Freq.**	**%**
… unclear	11	5,6
… rather unclear	20	10,2
… clear nor unclear	18	9,2
… rather clear	75	38,3
… clear	72	36,7
Total	196	100,0

Table 23: Transparency of the Museum's logo (absolute and relative frequencies)

	Do you find the Museum's logo…	
Scores from 1 till 5	**Freq.**	**%**
… old-fashioned	7	3,6
… rather old-fashioned	19	9,7
… modern nor old-fashioned	35	17,9
… rather modern	71	36,2
… modern	64	32,7
Total	196	100,0

Table 24: Modernity of the Museum's logo (absolute and relative frequencies)

	Do you find the Museum's logo…	
Scores from 1 till 5	**Freq.**	**%**
… unattractive	14	7,1
… rather unattractive	10	5,1

… attractive nor unattractive	45	23,0
… rather attractive	70	35,7
… attractive	57	29,1
Total	196	100,0

Table 25: Attractiveness of the Museum's logo (absolute and relative frequencies)

	Do you find the Museum's logo…		
Statistics	clear	modern	attractive
Mean	3,90	3,85	3,74
Median	4,00	4,00	4,00
Percentiles 25	3,25	3,00	3,00
50	4,00	4,00	4,00
75	5,00	5,00	5,00

Table 26: Transparency, modernity and attractiveness of the Museum's logo (mean - median - percentiles)

Overall, the scores are good till very good. It seems a bit surprising that the logo scores best on transparency, but many respondents said that the logo is clear "when you know what it is".

6. Conclusions

In the beginning of this paper, we formulated a couple of research questions. We will now return to these questions and formulate some conclusions.

First of all, we wondered how good the Museum's **logo** is in terms of **recognisability** and **transparency**.

The results of the survey show us that the logo is relatively easy to recognize, especially compared to those of some other federal museums. People who have already visited the Museum of Natural Sciences nearly always recognize its logo. This is part of the reason why the Museum's logo scores so high on recognisability compared to other Brussels museums: it ranks second among the museums with the highest visitor numbers, and about two third of the respondents in our sample have already visited the Museum, often less than 4 years ago. Nevertheless, the logo must possess some intrinsic quality of recognisability, because the Royal Museums of Fine Arts have many visitors too, and their logo is recognized by only a small percentage of all respondents.

The Museum logo is also quite transparent compared to other museums' logos: of the 64,3% who claim to recognize it, nearly all are able to link it to the correct (type of) museum. It seems that the logo's visual corresponds quite well to the Museum's concept, i.e. that of a natural history museum. Of course the dinosaur in the teardrop form has something to do with this, but the logo's transparency is in large part related to the language spoken by the respondent. The results suggest indeed that the logo is easier to understand for people who speak French than for Dutch-speaking respondents. French-speaking respondents also know the Museum's official name more often than Dutch-speaking respondents. In general, not many respondents will be able to spontaneously remember the Museum's official name, even when they have already visited it. Nevertheless, our hypothesis that the logo would reinforce the Museum's unofficial name ("Dinomuseum") at the expense of the official name, proved to be incorrect, as the latter is still mentioned more often.

We also wanted to test whether people would find it easy to 'read' the Museum's **posters** and whether they would understand that **the logo and the URL together** form the Museum's official name. We expected that many people would have difficulties deducing the official name from the poster, but that they would find it easier when the URL positioned right under the logo. However, the results showed that there is no significant difference between the two versions of the posters and that the position of the URL does not have an influence on the people's ability to deduce the Museum's official name. In both cases, little more than half of the respondents could tell which museum had issued the poster, and one third of the respondents did not have a clue at all. This clearly indicates that the link between the logo and the URL is often not understood. That is a

problem, because this poster is supposed to be used for advertising and should therefore clearly communicate the brand it promotes. This is certainly a point that ought to be improved.

When we look at the different **variables**, we see that those which have the biggest influence on the respondents' ability to recognize the logo and 'read' the posters are in the first place the respondent's language and the fact whether or not he has already visited the Museum.

Not surprisingly, the Museum is still mainly **associated** with its dinosaur collection. More than half of the respondents think of the dinosaurs first when they hear the name "Museum of natural sciences".

The respondents' evaluation of the Museum's logo is generally very good. The logo is perceived as clear, modern and quite attractive.

7. Recommendations

First of all, we advise the Museum to communicate its official name more clearly and more explicitly, especially on its posters and flyers. The Museum attracts lots of visitors every year, but still the official name is not very well-known and many people do not link the name to the correct museum. This would be less of a problem if there was not also the issue of the posters' readability: our results show that quite some people are not able to deduce the Museum's official name from the *Senses!* poster, and we experienced that the respondents often had to look at the poster for quite some time before they could tell by which museum it was issued. Ideally, the posters should communicate the Museum's brand clearly and explicitly, so that even someone who does not know the Museum would be able to tell at first sight which museum is presented on the poster. We therefore advise the Museum to present its official name more explicitly, for example by including the text "The Museum of Natural Sciences presents…" or by adding a belt with the Museum's full name and address.

Also, we advise the Museum to use different types of promotion for its different advertising locations. Our results show that events like Plazey Festival and Feest in het Park attract largely the same audience as the Museum and that most people visiting these events already know the Museum. That means that these events are a good place to promote new temporary exhibitions. In Technopolis and Wetenschap in het Paleis, on the other hand, where the audience was largely Flemish, the Museum was far less well-known, even though their visitors belong to the Museum's target audience too. Here, it could be interesting to promote the Museum as a whole, and not just the temporary exhibitions. A good way to do this would be a one-day event, similar to the *Bee Festival*, in co-organization with Technopolis.

Finally, our third suggestion would be to mention the Museum's location more often and more explicitly in promotional texts and press releases. We did not really include this in our survey, but we already mentioned in our introduction that the Museum is often confused with the Africa Museum and the Cinquantenaire Museum. This could be partly countered by making use of the Museum's extraordinary location: everybody knows the European Parliament, so mentioning that the Museum is situated right next to the European Parliament could be a good way to prevent confusion with other Brussels museums. After all, the Museum is unique in many respects, and its location is certainly one of them.

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