

Text in Exhibitions

Lorenz Kampschulte, 10/9/2014

(on the basis of: Scholz, F., Weber, T.: Tips zum Texten im Museum; Leopold, A., Weber, T.: Verständliche Texte im Museum. Ein Leitfaden. München 1993)

A critical review on exhibition texts

Well-intentioned is not good enough - many museum texts misjudge the reader: they overcharge and/or confuse the reader and thus discourage them. By choosing wrong language and content level, they are understandable for experts only and thus give the regular visitor a feeling of incompetence. Some texts even bore the reader due to a wrong level. Altogether, those texts don't reach the addressee.

Well written texts support the visitor not only in informing themselves, but also engage visitors to have a closer look at things. They provide the reader a chance to get a greater picture of the content, as well as to see problems. They raise questions, and offer material to deepen visitor's knowledge. Well written texts are descriptive and memorable; they draw the visitor to further reading on and closer inspection of the topic.

The length of exhibition texts is a hotly debated question for museum professionals: in general, they should be short. But the length should have some relation to the size of the object and/or the significance of topic they describe. Here, the necessary sensitivity / tact are definitely questioned. Just as an estimate, a common text length in exhibitions is between 300 and 1000 signs (including spaces).

Structure and organization

The sequence of the information arrangement in the text is important: In the first phrase, the information on the object/topic is placed ("What is this?"). Then, the text follows the "start easy!" approach: Beginning with plain information and a low information density, then heading to more and more complicated facts with a higher information density. Ideally, an arc of suspense is created through the whole text.

An advanced approach of this system is to write multi-level texts: the first part is a short text with the most important information for the "express visitor", the second part is a longer version with further remarks to deepen the knowledge. Although it is not easy to write these texts without too many redundancies, it offers the visitor the chance to leave half way with at least getting the main information.

To create a clearly defined line of thought, the content is reduced to the only really necessary, and arranged in a clear, consequential way. This can be supported by positioning the line breaks in the

texts in relation to logical phrases and not in just filling up each line (see example below). Longer texts are structured with paragraphs, or even with subheadings. This eases the orientation for the reader, and creates motivation to read on.

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Figure 1: An example text block, left without, right with line breaks at logical phrases.

Step by step to a good text

- Collect material
- Create a text structure
- Reduce content to the only really necessary
- Try a first verbalization
- Clarify the text, structure it, and shorten it.
- Let it test-read from someone outside the project
- Work out the final version

Linguistic composition

There are no mandatory instructions for good texts. Writing a suitable, easily understandable exhibition text is dependent on many different factors, like exhibition topic, overall design, and target group (to name just a few). In general, linguistic composition calls for good imagination and critical reflection. With all its variety and creative freedom, there are some factors that greatly enhance the understanding of exhibition texts: Writing simple sentences with short sentence parts is helpful, as well as using common words instead of loanwords and technical terms. Short words should be preferred to long, combined words (although this is no big deal in English, it is a relevant factor for other languages, e.g. German). Avoiding filler words ("I mean", "sort of", "furthermore", ...), iterations and adjectives that are not really necessary not only eases understanding, but also helps shorten text length in general. A concrete and figurative phrasing of the text supports comprehension, just as choosing demonstrative examples instead of abstraction. Last but not least, a verbal (as opposed to substantival) writing style and the use of strong verbs improve understanding.

Possibilities of motivation

There are many possibilities to motivate visitors to read exhibition texts. In general, they can be assigned to two groups: Stimulation with regard to the content, and with regard to the language. For the first, often the object or topic itself throws up interesting starting points: Is there a novel or especially outstanding feature, a surprising or fancy aspect? Or a relation to a current issue? Another way is to contextualize the object or topic, i.e. embedding it into an everyday situation the visitor is used to. Additionally, motivation can be created by bringing up questions, comparisons, or as well by sketching a problem.

A different way to motivate visitors to read texts is by the way the language is used: Writing texts with changing sentence length and structure, as well as using sentence fragments every now and then creates diverting reading experience. And still: brevity is the soul of wit.

Text hierarchy

Clearly hierarchized text levels support visitors sorting the information provided in the exhibition. Dependent on the size of the exhibition, the amount of text levels can vary: for a small exhibition (~ 30 m²), three text levels might be enough, for larger exhibitions more levels might be necessary. The information presented in the levels is different, higher levels are giving introductions or a general overview; lower level texts contain more specific information. An example for a text level system with five levels is given in the sketch and table below.

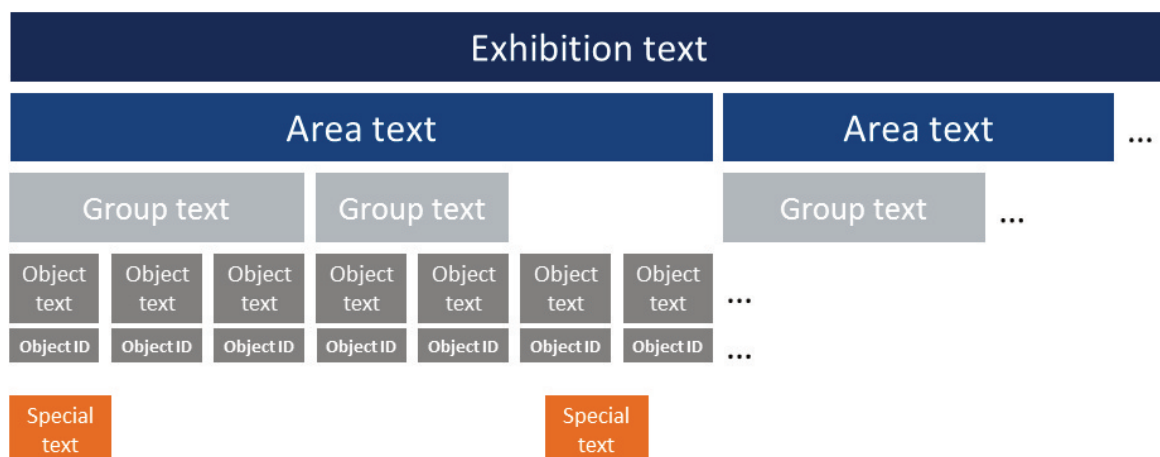


Figure 2: Example of a text level system with five (plus one) text levels.

Text level	Description	Typical text length (incl. spaces)
Exhibition text	Approach to the topic, introduction. Could also present the thematic exhibition structure and offer hints for navigating the room.	1000 signs
Area text	Explains the general content of the exhibition area, justifies the choice of the content, creates links within the area and to other areas (links could be historic, economic, social, ecologic, ...)	700 signs
Group text	Names the exhibit group with their title and offers information on the content presented in the group. Explains the connections between the objects in the group and indicates historic, economic, social, and/or ecologic aspects.	700 signs
Object text	Answers questions that arise when the visitor is looking at the exhibit (the term exhibits is used here in a broader sense, i.e. this could also be photos, drawings, videos, ...). The text should support the visitor in closely studying the object and should provoke reflection and questioning. Usually, object texts are the most read texts in exhibitions.	350 signs
Object ID card	Offers the most basic information on the object: Name of object, manufacturer, production year and place, technical data, donator/lender, inventory number. Could also be combined with the object text.	

Depending on the topic and design of the exhibition, several other text species might be introduced. This could be, for instance, explanations to experiments/demonstrations (describing how to use the experiment/demo and what the visitor will see as result), theoretical backgrounds (e.g. deeper going background for specialists), personality/celebrity texts (presenting relevant persons devoted to the topic), questions/statements to structure the exhibition, and many more. A point to keep in mind is that every new text species needs some time to be realized by the visitor as new. Thus, as little add-on levels as possible should be used, they should appear regularly (at least 3-4 times in a small exhibition), and they should be easily distinguishable as special text species (different design). A good length for special texts is 600 signs (including spaces).

Graphic design

One can put a lot of effort in writing great exhibition texts, but if the graphic design of the text elements is deficient, the visitor will not get much out of it. Designers tend to see text as a necessary evil of an exhibition, that spoils their design flow - and thus often try to minimize or hide out with tone-in-tone colors. So here are some hints for consideration:

The most important factors for readability are text height, typeface, and contrast to the background. Many different typefaces in an exhibition design are confusing, so in an exhibition two to three different typefaces should be used at most. For the same reason, highlighting words or phrases in the exhibition texts should be avoided (or at least minimized). Great influence on easy reading also have the length of the lines, as well as the position of the line breaks (left-justification is easier to read than grouped style, breaks with relation to logical phrases are even better). Especially in longer texts, a visible text structure (paragraphs, subheadings) is also helpful for the reader. In general, text written in upper and lower case is easier to read than capital letters only.

Different typefaces and colors can signalize different content, from objective-unemotional to celebratory-exclusive. To highlight the text hierarchy and thus make it easily comprehensible, the different levels should have different design. This could e.g. be done by text size and/or typeface, by text and/or background color, or by framing the text elements.

The installation of the texts has as well an influence on the readability: If mounted too low (below ~ 80 cm) or too high (above ~ 180 cm), text is hard to read. Text in the back part of a flat (tabletop) surface is hard to read as well, so these should either be mounted it in the front part, or on text panels slightly tilted towards the visitor. Good lighting of the texts is essential as well. If positioning object texts, try to mount them close to the object, but without impairing it.

Example texts

This text examples are taken from the exhibition “Nano- and Biotechnologie” in the Center for New Technologies at the Deutsche Museum in Munich / Germany. The 650 m² exhibition was opened in 2009. On the panels, the left column is German, the right column English text. Additionally, all English text is italicized. In this exhibition, the object text level is presented on large screens inside the showcase. The special text level in this case is used to present the “founders” of nano- and biotechnology, important persons of different profession (researchers, politicians, project managers, ...) that paved the way for these new technologies.

Photo of text panel	English text
<p>Vorstoß in eine neue Dimension des Mikrokosmos: Nano- und Biotechnologie <i>Venturing into a new dimension of microcosm: Nanotechnology and Biotechnology</i></p> <p>Wissenschaftler haben begonnen, einen neuen Kosmos zu entdecken. Diese lange vernachlässigte Welt im Kleinen findet sich auf einer Größenskala weit unterhalb der im Lichtmikroskop sichtbaren Dinge. Kleiner als ein Bakterium, aber größer als die einzelnen Atome oder Moleküle, die im Mittelpunkt der Physik und Chemie des 20. Jahrhunderts standen.</p> <p>Science has begun to discover a whole new cosmos. This long neglected miniature world is found on a scale far below the things visible under an optical microscope. Smaller than a bacterium but larger than the individual atoms and molecules which were at the centre of physics and chemistry in the 20th century.</p> <p>Dieser Kosmos auf einer Skala von Nanometern – Milliardstel Metern – ist reich an komplexen Strukturen. Auf ihnen beruht auch das Geheimnis des Lebens. Erst neuere Labortechniken ermöglichen es mittlerweile, diese verborgene Welt immer präziser zu erfassen.</p> <p>Biologen, Chemiker, Physiker und Materialwissenschaftler arbeiten gemeinsam daran, die Materie auf dieser Ebene zu verstehen und zu gestalten. Ihre Vision ist es, gezielt Strukturen und Systeme auf Nanoskala zu erschaffen.</p> <p>This cosmos on a scale of nanometres – one billionth of a metre – is rich in complex structures. The secret of life is based on these structures. The new laboratory techniques we have today now allow this hidden world to be discovered ever more precisely.</p> <p>Biologists, chemists, physicists and materials researchers all work together in order to understand and shape matter on this level. Their vision is to create specific structures and systems on nanoscale.</p> <p>Exhibition text</p>	<p>Venturing into a new dimension of microcosm: Nanotechnology and Biotechnology</p> <p>Researchers have begun to discover a whole new cosmos: a long neglected miniature world. This microcosm is found on a scale far below the things visible under an optical microscope: smaller than a bacterium but larger than the individual atoms and molecules which were at the centre of physics and chemistry in the 20th century. This cosmos on a scale of nanometres – one billionth of a metre – is rich in complex structures. The secret of life is based on these structures. The new laboratory techniques we have today now allow this hidden world to be discovered ever more precisely. Biologists, chemists, physicists and materials researchers all work together in order to understand and shape matter on this level. Their vision is to create specific structures and systems on nanoscale.</p>
<p>Den Nanokosmos erschließen: Du musst dir ein Bildnis machen! <i>Exploring the nanocosm: You have to make a picture!</i></p> <p>Strukturen des Nanokosmos sind prinzipiell zu klein um sie mit Lichtmikroskopie sichtbar zu machen – sie können nur indirekt „sichtbar“ gemacht werden.</p> <p>Für eine regelmäßig sich wiederholende Nanostruktur wie das Gitter eines Kristalls gelingt dies seit langem. Seit den 1980er Jahren stehen aber auch Instrumente zur Verfügung, die einzelne Oberflächenstrukturen auf ein Atom genau abbilden und sogar manipulieren. Heute dringen immer mehr mikroskopische Techniken in den Nanokosmos vor.</p> <p>The structures of the nanocosm are too small to be visualized with the help of light microscopy – there is only an indirect way of making them “visible”.</p> <p>This has been possible for a long time for regularly repeating nanostructures like the lattice of a crystal. Since the 1980s, however, instruments have been available which image and even manipulate the different surface structures precisely, down to the individual atom. Today, more and more microscopic techniques are finding their way into the nanocosm.</p> <p>Area text</p>	<p>Exploring the nanocosm: You have to gain a picture!</p> <p>The structures of the nanocosm are too small to be visualized with the help of light microscopy – there is only an indirect way of making them “visible”. This has been possible for a long time for regularly repeating nanostructures like the lattice of a crystal. Since the 1980s, however, instruments have been available which image and even manipulate the different surface structures precisely, down to the individual atom. Today, more and more microscopic techniques are finding their way into the nanocosm.</p>

Ein Tor zum Nanokosmos öffnet sich: Instrumente, die Atome abtasten! A gate to the nanocosmos is opening: Instruments for scanning atoms!

Das 1981 erfundene Rastertunnelmikroskop ermöglichte es, erstmals unterschiedlichste Oberflächen atomgenau abzubilden. Nur wenig später gelang es, einzelne Atome damit zu bewegen und zu neuen Strukturen zusammenzufügen.

Rastertunnelmikroskope arbeiten anders als Lichtmikroskope: Sie tasten die Oberfläche mit einer sehr feinen Spitze ab, das Bild entsteht Zeile für Zeile, nicht auf einen Schlag. Dieses Abtasten erzeugt ein Höhenlinien-Bild.

Das neue Instrument verbreitete sich rasch und gab den Nanowissenschaften seit den 1980er Jahren enormen Schub. Dabei hatte zunächst kaum ein Wissenschaftler ein derart feines Abtasten von Atomen für praktikabel gehalten.

The scanning tunnelling microscope invented in 1981 allows the most different surfaces to be viewed for the first time at the atomic level. Only a short time later, researchers succeeded in using it to move individual atoms and assemble them into new structures.

The concept of scanning tunnelling microscopes is different from optical microscopes: they scan the surface with an extremely fine tip; the image is produced line by line and not in one shot. This scanning process produces a contour map of the surface.

The new instrument quickly spread and has given nanoscientists enormous impetus since the 1980s despite the fact that, at first, hardly any scientist thought that such fine scanning of atoms would be possible.

Group text

A gate to the nanocosmos is opening: Instruments for scanning atoms!

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Object text

Cardbord model of the 7 x 7 reconstruction of a silicon(111) surface

The scanning tunnelling microscope's signals were commonly viewed with an oscilloscope and an x-y recorder. For this model, the recorder's printout was copied and the individual scanned lines were cut out and glued together. In the flat part on the left you can see two diamond-shaped fields of the 7 x 7 reconstruction.



Object ID card

Cardboard model of the 7 x 7 reconstruction of a silicon(111) surface

Christoph Gerber, IBM Research GmbH, Rüschlikon (Schweiz), 1982

Leihgeber: IBM Research GmbH, Rüschlikon (Schweiz)

Inv.-Nr. L 2009-15



Special text

Gerd Binnig (born 1947) – The creative inventor as a nano-pioneer

With unconventional ideas and his technical talent, Gerd Binnig contributed like no other to the development of scanning probe microscopes. As a young researcher at the IBM Research Laboratory in Rüschlikon near Zurich, he developed the scanning tunnelling microscope in the early 1980s. In 1986, he shared the Nobel Prize for Physics with the Swiss physicist Heinrich Rohrer for this achievement. The new family of instruments – today used hundreds of thousands of times by researchers – proved to be a milestone in nanotechnology. Creativity has continued to be Binnig's motto, both in his private life as a keen jazz musician and as a scientist looking for ever new challenges. So he turned from nanophysics to artificial intelligence and, for that purpose, established his own company in Munich in 1994. This is concerned with image analysis and interpretation on various scales, from microscopic cell structures to satellite images.