Art Nouveau & Ecology. VIP action

How to make heritage accessible for blind & visually impaired people

Written by Maria-José Ania
The Réseau Art Nouveau Network was established by the Brussels-Capital Region in 1998, becoming a non-profit organisation in 2007. Through a host of initiatives, the Réseau raises awareness of Art Nouveau, examining and protecting its legacy in Europe.

The European Commission has sponsored the Network on four occasions (the launch phase, 1999-2000; the programmes Art Nouveau in Progress, 2001-2004, Art Nouveau and Society, 2005-2008 and Art Nouveau and Ecology, 2010-2015). The Network organises seminars, travelling exhibitions open to the general public and professional exchanges for partner institutions. It has also produced various publications and has a website for adults and children, new enthusiasts and professionals alike.

This handbook is intended to accompany the project Art Nouveau & Ecology. The aim of the project is to highlight links between Art Nouveau and nature, and explore the relationship between artists of the period with their environment through various activities (exhibitions, symposiums, seminars, professional exchanges, and educational and virtual tools).

The Réseau Art Nouveau Network especially developed actions aimed at visually impaired people in order to ease their access to the Art Nouveau movement. This handbook available in French and English on the network website www.artnouveau-net.eu specifically allows the institutions wishing to work with the visually impaired public to adapt their content to the audience.
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How to make heritage accessible for blind & visually impaired people

Text & photos: Maria-José Ania
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What do we mean when we talk about accessibility?

The concept has evolved over the years. If it was initially identified with wheelchairs and the elimination of architectural barriers, it has long since broadened its scope to encompass the world of culture and information. It now takes into account other types of disability beyond that of physical or persons with reduced mobility (PRMs).

**Accessibility** is the degree to which a product or service is made available to all people regardless of their capabilities.

We use the term **mobility access** when referring to overcoming physical or architectural barriers that hinder mobility: ramps, elevators, platforms and other similar elements.

We use the term **sensory access** when referring to overcoming communication barriers that hinder access to informational and cultural content: large-print typography, braille, sign language interpretation, etc.

**Visual access** is included in the concept of sensory access.

It is not only a question of **visitors’ rights**, but also a question of **social and economic benefits** given that accessibility:

- is synonymous with quality,
- reinforces Corporate Social Responsibility (CSR), and is a way of attracting new audiences.
Texts printed in braille are essential for blind people.

A screen magnifier is a technical aid for people with low vision.
TARGET AUDIENCE

Accessibility benefits EVERYONE: it is necessary for persons with disabilities, but it is also to everyone’s advantage.

Within its enormous complexity today, four main types of disability are usually identified: physical or motor, visual, hearing, and cognitive, mental or intellectual.

Visual disability includes people with:

- Congenital, from birth, blindness. These are so-called “legally blind” people, also categorised as B1 (Blind 1, or first level of blindness). They have up to 10% of visual acuity or visual field. They require a white cane or a guide dog. Some have a small percentage of vision. Those with congenital total blindness have never seen colours nor have any visual memory, but they can possess a very high degree of autonomy and integration. Almost all of them use the universal system of braille literacy.

- Blindness acquired either suddenly or gradually during childhood or adulthood, also referred to as B1. Many have learned braille and have a relatively present visual memory. The psychological process of acquired blindness can be long and complex.

- Low Vision, also categorised as B2. Their residual vision is higher than 10% but lower than 50%. They are difficult to identify, as the vast majority do not use a white cane or guide dog. Low vision often implies serious difficulties and uncertainties.

- Residual vision higher than 50%, also categorised as B3, referring to users of optical eyewear and aids.

- The elderly in general. They can usually be found in the B3 category at the best of times because of their age.
1. Readiness and commitment of all stakeholders

Accessibility is neither an isolated nor marginal issue: it is a crosscutting issue because it affects all areas of heritage management in one way or another:

- Management: it is essential that awareness is raised from the highest levels of management and that part of the budget is allocated to programmes and resources.
- Exhibition head: to incorporate general guidelines for accessibility when mounting shows.
- Educational services: to design guided tours, workshops, educational materials, etc.
- Programmes or activities: when organising a series of lectures, panel discussions, theatrical performances, concerts, etc.
- Communication: to ensure clear information in accessible formats and to disseminate existing resources.
- Service staff for the public: to interact with blind visitors, whether at reception or as guides-educators, gallery guards, etc.

Important (in the case of temporary exhibitions):

- Accessibility criteria should be incorporated from the beginning; they should be obligatory from the moment the job is commissined.

- The briefing should include a fixed section on accessibility – only in this way would the commitment to an accessible exhibition be reflected throughout the exhibition’s process and development.

- The curator’s instructions regarding the main contents of the message to convey, and the exhibition’s key ideas and works, will be the basis for working on accessible communication.
2. Appoint an access officer

Given that accessibility is a crosscutting issue, a person to be responsible for accessibility must be designated:

- to ensure and guarantee compliance of the Decalogue,
- to coordinate internally all departments and stakeholders,
- and to be the public interlocutor for visitors with special needs.

This person’s first task would be:

- to recognise the essential content that is to be conveyed,
- and to recognise the resources available to the general public.

From that point on, the person must assess what needs to be done to at the very least equate access into the content’s main message.
3. Apply Universal Design principles

“Universal Design”, also known as “Inclusive Design” or “Design for All”, is defined as:

A strategy which aims to make the design and composition of different environments, products, communication, information technology and services accessible and understandable to, as well as usable by, everyone, to the greatest extent in the most independent and natural manner possible, preferably without the need for adaptation or specialised solutions.

Tactile area at the Gargallo exhibition, displaying the unique process that the artist followed to produce some of his most famous works: from cardboard cutout templates and metal spare parts to assembly of the final piece. Universal Design is inclusive because it combines various perceptions: visual and tactile, printed and braille texts.

Didactic recreation of the production process for a bronze sculpture: 1. Initial clay model of a female nude; 2. Silicone negative mould; 3. Wax figure with casting tree; 4. Cavity mould with casting tree and sprue; 5. Rough bronze cast piece before polishing; 6. Final polished bronze piece. Tactile elements and both printed and braille text labels are an example of design for all.
The general principles of Universal Design can be applied to specific actions, as can be seen in the following table:

<table>
<thead>
<tr>
<th>Universal Design principles:</th>
<th>Specific application examples:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Equitable use:</strong></td>
<td>Location plans (integrated, with printed text, raised text and braille).</td>
</tr>
<tr>
<td>Design must be easy and adapted to all.</td>
<td></td>
</tr>
<tr>
<td>Should accommodate everyone or at the very least equitable use for all users.</td>
<td></td>
</tr>
<tr>
<td><strong>Flexibility in use:</strong></td>
<td>Multimedia audio guide (with audio description).</td>
</tr>
<tr>
<td>Accommodate a wide range of individual preferences and abilities.</td>
<td></td>
</tr>
<tr>
<td><strong>Simple and intuitive use:</strong></td>
<td>Clear and simple gallery texts.</td>
</tr>
<tr>
<td>Understandable for all regardless of user’s experience, knowledge or concentration level.</td>
<td></td>
</tr>
<tr>
<td><strong>Perceptible information:</strong></td>
<td>Possibility for blind people to touch the most relevant pieces.</td>
</tr>
<tr>
<td>The user must receive the information easily, regardless of his or her sensory abilities.</td>
<td></td>
</tr>
<tr>
<td><strong>Low physical effort:</strong></td>
<td>Large print posters.</td>
</tr>
<tr>
<td>Designed to be used with a minimum of fatigue.</td>
<td></td>
</tr>
<tr>
<td><strong>Size and space:</strong></td>
<td>Open space between cabinets, seats on loan, height of bases, etc.</td>
</tr>
<tr>
<td>Appropriate size and space regardless of the user’s age, body size, posture or mobility.</td>
<td></td>
</tr>
<tr>
<td><strong>Tolerance for error:</strong></td>
<td>Tables with round angles, non sharp edges, etc.</td>
</tr>
<tr>
<td>Minimises hazards and adverse consequences of accidental or unintended actions.</td>
<td></td>
</tr>
</tbody>
</table>
4. Be aware of general guidelines

Graphic design

In graphic design including text, the phrase “readability level” is used to refer to the formal characteristics that make a text easy and enjoyable to read.

- Colours and contrasts

It is still common to find labels with white letters on a light grey background. Needless to say, this is difficult to read, even for people with good eyesight. Remember: the less contrast between the typeface colour and background, the more illegible the text is.

Examples of good contrasting colours are: white/dark blue, black/yellow, green/white, red/white:

<table>
<thead>
<tr>
<th>BLACK ON WHITE</th>
<th>WHITE ON BLACK</th>
</tr>
</thead>
<tbody>
<tr>
<td>YELLOW ON BLACK</td>
<td>WHITE ON BLUE</td>
</tr>
<tr>
<td>WHITE ON RED</td>
<td>BLUE ON WHITE</td>
</tr>
<tr>
<td>RED ON WHITE</td>
<td>WHITE ON GREEN</td>
</tr>
</tbody>
</table>

The ideal conditions for reading and identifying graphic objects occur when there is good contrast; for example, using black on white or a dark colour on a light one.

Reverse texts (white on black or a solid colour) should not be very long and are only recommended for titles and short phrases or quotes. For improved legibility, it is wise to leave a little more space between the letters and also the lines, which is not the case with a normal text. This is because the lines of the reverse letters must “compete” more with the background colour.
Another recommendation: do not put text on printed images or transparent glass panels found in the middle of an exhibition space, as the letters can be confused with the background images or what is seen through the glass.

• Font

Plain, or sans serif, letters are more recommended and accessible than Roman, or serif, letters. Therefore, the most appropriate fonts are the straight ones: Verdana, Arial, Helvetica or Universal.

Italics are useful to emphasise a particular word, but are not recommended for longer texts because their lean makes reading difficult. Similarly, writing long sentences in capital letters is not advisable as this eliminates any clues that may aid in reading, such as the height difference between letters.

• Font size

One of the most frequent disputes between users and designers comes from the latter’s absurd habit of using overly small font sizes. Design that accommodates everyone requires good reading conditions and this means using letters that are large enough, even if the result does not fit into aesthetic canons.

The recommended minimum font size is 12 point, and this can be increased depending on each specific case. For example, a very suitable font size for dossiers or information sheets in gallery rooms is 18 point with a minimum line spacing of 1.5.

The spaces between letters and words would be those corresponding to the particular font, except in the case of reverse texts, for which these spaces should be increased.

Titles and headings should be clearly differentiated (bold, bigger, etc.).

The distance between a person and the sign, gallery room text, label, etc. should also be taken into account.
Font sizes for signs according to reading distance

<table>
<thead>
<tr>
<th>Distance</th>
<th>Minimum size</th>
<th>Recommended size</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;5.00 m</td>
<td>7.0 cm</td>
<td>14.0 cm</td>
</tr>
<tr>
<td>4.00 m</td>
<td>5.6 cm</td>
<td>11.0 cm</td>
</tr>
<tr>
<td>3.00 m</td>
<td>4.2 cm</td>
<td>8.4 cm</td>
</tr>
<tr>
<td>2.00 m</td>
<td>2.8 cm</td>
<td>5.6 cm</td>
</tr>
<tr>
<td>1.00 m</td>
<td>1.4 cm</td>
<td>2.8 cm</td>
</tr>
<tr>
<td>0.50 m</td>
<td>0.7 cm</td>
<td>1.4 cm</td>
</tr>
</tbody>
</table>

• Alignment

Contrary to usual practice, the text should be aligned left and not justified. Text is easier to read when it does not appear in a perfectly square or rectangular block, but when the right lines are ragged according to the length of each particular line. This helps your eye to jump more easily from one line to the next and not be lost in the text.

• Proximity to object

Respecting the logic of being able to see the works on display, texts and graphics identifying each individual object must be as close as possible, so that there is no doubt which text accompanies which object and you do not have to move or look around each time.

In a glass cabinet, for example, in which there are several objects and a single label describing all the pieces on display, it is advisable to indicate each piece with a photo or drawing next to the identifying text. When there is only a number and a blank square, it is harder to locate and identify the piece.

The same criteria can be applied to printed material regarding the use of captions: the reader must avoid any extra effort, such as having to consult another page to identify an image.
Easy-to-read materials

The phrase “easy-to-read” encompasses both the formal aspects of graphic design, as already mentioned, and the content’s linguistic aspects.

It is difficult to use simple language when writing. There is the risk of making it sound banal, or reducing the amount of information or accuracy. But this should not prevent us from considering that a short, clear text always reaches a wider audience more easily.

• **Tone of text**

It is important to write texts that can be understood by a wide majority of audiences. Concepts must be expressed as clearly as possible.

In general, information blocks should be thematically ordered, or prioritised if necessary, by following the logical principles of ordering sentence parts and avoiding complex syntactic constructions. As for vocabulary, it is not advisable to use rhetorical structures, repetitions, learned words, technical terms, etc., as these should be replaced by other simpler words, or if that is not possible, a glossary should be provided.

• **Text length**

For many curators and content creators, one of the most difficult temptations to overcome is that of making longer texts than a visitor can digest. One must take into account that reading and looking are not the same. Reading requires concentration and a relaxed body, attributes that we normally have when sitting down to read a book. Exhibition texts are almost always printed on a vertical support. You read them in a standing position and they are often an adjunct to what is actually on display. One recommendation to avoid the use of overly long texts is to not exceed 500 characters for each block of text that requires you to stop and read it while standing.

On the other hand, short texts or summaries may be a good alternative when producing accessible versions of large print or easy-to-read brochures. Below is an example of the same text in two different versions according to the support from which it is read.

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1 Easy-to-read materials are considered necessary for 30% of the population, who have difficulty reading. They are produced according to the guidelines of the International Federation of Library Associations and Institutions (IFLA)
From the 1960s, a few artists set out to work outside the objectivity of the prevailing Informalism and Abstract Expressionism at the time to open new paths, invent new forms of collaboration and erase the boundaries between art and life, as part of a new aesthetic spirit that defied pre-established notions on content, style, media and public. New expressive strategies challenged the artist’s role in society and revised the notion of art as related to personal identity. A new focus on the spectacle of everyday life characterised their research, in which they drew from the kitchen as a place of cultural imagination and production and real food as material with which to create, actions that raised food to the status of artwork.

The same, shortened text, which is suitable to be read in a gallery space or in a large-print version:

From the 1960s, artists began to erase the boundaries between art and life and challenged their role within society. The spectacle of the everyday led to research and the kitchen became a place of cultural imagination and production. Food was raised to the status of artwork.

### Summary table: legibility and readability guidelines

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>High-contrast text.</td>
<td>White text on light grey background.</td>
</tr>
<tr>
<td>Text on solid colour.</td>
<td>Text on clear glass.</td>
</tr>
<tr>
<td>San serif fonts.</td>
<td>Serif fonts.</td>
</tr>
<tr>
<td>Capitals, italics or reverse text: only for titles, headings or short phrases.</td>
<td>Long texts with capitals, italics or reverse text.</td>
</tr>
<tr>
<td>Aligned left text.</td>
<td>Justified text.</td>
</tr>
<tr>
<td>18pt type for dossiers and gallery space information sheets.</td>
<td>Small size text.</td>
</tr>
<tr>
<td>Multi-piece label nearby with photos and drawings.</td>
<td>Multi-piece label far away without photos and drawings.</td>
</tr>
<tr>
<td>Simple syntax.</td>
<td>Complex syntax.</td>
</tr>
<tr>
<td>Minimum of 500 characters for wall text.</td>
<td>Long wall text.</td>
</tr>
<tr>
<td>Easy-to-read formats available.</td>
<td>Complex, rhetorical writing style.</td>
</tr>
</tbody>
</table>
Lighting

• Lighting must not produce flare, reflections, glare or shadows.

• Most people with vision problems need a generous amount of lighting but, above all, the lighting must be even. The following criterion is commonly used: there must be a 1-3-5 relationship ratio depending on proximity to the viewing point: 1 for general illumination, 3 for immediate surroundings and 5 for viewing point.

• Direct glare is avoided by placing light sources outside the field of vision.

• Avoid strong contrasts in the amount of light, from both inside and outside and between the different gallery rooms. Moving from one amount of lighting to another very different amount disorients people and requires time for them to adapt.

• Points of interest should be spotlighted to help identify them.

• If conservation rules allow, the lighting of objects must be greater than at least 100 lux. The recommended range is between 150 and 300 lux.

• If conservation of the works requires low lighting, a good solution is to compensate this by using brightly coloured elements for the background of the works on display.
Tactile recognition is essential for blind people.

Didactic materials used in the architecture tours of the Joan Miró Foundation building in Barcelona. They are a visual and tactile representation of the formwork technique used in constructing...
5. Be aware of specific accessibility resources

Tactile elements

Not only are these essential for blind people, they are also very useful and appealing for everyone. Providing tactile elements for blind visitors raises awareness for the rest of the public in general in a very positive manner, even if touching them can only be done by the blind.

Deciding which tactile elements are to be made available is a complex issue. The decision would depend on the subject matter, nature of the pieces on display, the possibility of producing replicas, etc.

The following options can be considered regarding heritage content:

- Ideal situation: the original works can be explored by touch by blind people without gloves\(^2\) and, if required, under the supervision of a guide or educator. It is true that curators often cringe at this idea and immediately discard it, but one must insist. Conservation reasons do not justify consecrating an artwork to the point of making it inaccessible for blind people and preventing them from aesthetically experiencing it.

- A full-size replica or scale model of a few particularly relevant pieces is a very optimal solution.

- Other types of teaching elements can help make the contents of an exhibition more accessible, such as raised diagrams of two-dimensional works, samples of materials making up certain pieces, tools used for a particular technique, etc.

Important things to take into account about the sense of touch:

- **Touch is sequential and analytical**, whereas sight is overall and synthetic. Tactile exploration is a process that progresses from a detail to arrive at the whole. But with sight, the first thing we capture is a summary of everything, and it is only later - when we pause to look more carefully – that we notice the details.

\(^2\)It is time to bury the idea of forcing blind people to use gloves to touch sculptures and other objects. In the words of a blind person: “It is like giving sighted people a pair of sunglasses to view an exhibition.” The use of common sense precautions is sufficient (clean hands, no rings, etc.).
Tactile exploration is sequential and requires time.

1:100 scale model of the Joan Miró Foundation building.
This very different, if not opposite, way of perceiving an object by sight or touch must be at the forefront of one’s mind.

- **Tactile exploration requires time.** It is very important to take this into account in order to make a correct selection of a small number of elements to touch.

- Touch, and more specifically so-called “haptic perception”\(^3\), can capture an object’s often hidden properties. While sight is more focused on understanding structural properties (shape, size, colour), touch also analyses significant properties (texture, temperature, hardness).

### Types of tactile elements

- **Scale models**

Suitable for explaining:
- architecture and urbanism: a building, neighbourhood, type of construction,
- and large-scale structures and objects.

**Guidelines to consider:**

**Size**

- The width of a tactile model should not exceed 135 cm and should never exceed the width of person whose arms are half-open.
- Smaller sizes are preferable to overly large sizes. A small, 30-40-cm model you can get your arms around is extremely effective.

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\(^3\)The term “haptic perception” refers to the active, conscious use of touch. It is different to tactile perception because the former emphasises the importance of the hand as an expert system and finger movements perform exploratory procedures to capture the properties of an object.
Tactile elements on a flat surface and combined large-print and braille labels on an angled surface.
Museo Vivanco de la Cultura del Vino (La Rioja)

Blind visitors to the Metropolitan Museum in New York are invited to touch the original works of antiquity.

1:200 scale model of Barcelona’s Drassanes Reials (Royal Shipyards). A model of a red bus can be seen in the photo on the left to indicate scale.

1:50 scale model detailing the interior Gothic arches (a human figure can be seen in the foreground).
Materials

- Must be strong and durable and always easy to maintain.
- Must be very dense, of which there are many types: wood, resin, acrylic, polyurethane, etc.
- The finished model should resemble the work it represents as much as possible, especially regarding colour and texture.
- Colour and texture can be ignored when you want to highlight volume and shape.
- Avoid sharp edges and smooth down angles and other edges well to avoid the chance of injury.

Base and label

- The base must not be higher than 90 cm from the ground.
- The model must rest on a flat, horizontal plane, while the label is best read at a recommended angle of between 15-30 degrees.
- The label and all the information accompanying a tactile model must include large braille characters. If the braille is on a transparent adhesive sheet, it can be placed above the text. But if the braille and text are separate, the former is placed below the text, never above.
- It is very important to indicate the model’s scale in understandable figures: 1:200, 1:100, 1:50, etc. A scale of 1:85 is not understandable. A familiar element such as a human figure, car or bus can also be included to compare sizes.

• Full-size replicas

Apply the aforementioned guidelines on size, base and label.

Important: new 3D-printer technology may open many possibilities for the production of models and replicas.

• Location and direction plans

They are useful for everyone because they involve:
- sight and touch,
- raised and textured text and colour,
- and large-print fonts and braille.
The model of the house in Coupvray where Louis Braille was born displays its rooms.

3D floor plan of the attic in La Pedrera (Barcelona) made from an aluminium panel.

Raised vinyl floor plan of the San Francisco auditorium in Avila.

Raised plan and braille key on microcapsule paper.
Guidelines to consider:

- Be informative, but not more than required: you must very carefully decide what is relevant and not use too many raised or textured lines. Remember that too much information does not inform, and in this case accumulation impedes clarity.
- Best on a lectern-type base at an angle of between 15-20 degrees.
- It is essential that the layout of the plan coincides with the space it is representing: if the elevator is to the right when we are looking at the plan, the icon for the elevator should also be to the right of the point that states “You are here”.

Types of plans:

- 3D on a piece of aluminium (approx. 4 cm thick) or other similar material:

  Suitable for providing information on volumes and levels of an architectural complex. Thus, stairs and ramps, etc. can be represented in a less abstract form that is more akin to reality.
  Made from vandal-resistant material, they are solid, heavy pieces that should be fixed to a base.
  Although size can vary depending on what you want to represent, an optimum size would be 50 x 70 cm.

- Raised on vinyl or another flat surface:

  Suitable for representing a floor plan or geographical map.
  Made from lighter material, they are usually quite strong and durable. They can be permanently fixed onto a base and can also be transported if part of a route or travelling show.
  Size can vary, but it should be limited to a maximum size of 40 x 30 cm if it is not a static element.

- Raised on swell paper:

  Suitable for very simple representations. They have a single raised layer that is complemented by different, usually black textures. The usual size is DIN A4 or maximum DIN A3.
  They are not inclusive elements (not very useful for sighted people), but can be a very effective tool for the blind.
  Made from ephemeral material with limited durability, they are nonetheless very versatile and several copies can be made, either for use by blind visitors or as part of a dossier.
Raised diagram of a painting.

Raised diagram of a photograph.

Raised and enlarged reproduction of Rembrandt’s signature.

Printed dossier in large print and braille with raised illustration sheets.

Tactile colour reproduction of an original work. A blind person learns about this famous Japanese print by listening to the descriptive audio guide and tracing the raised lines and textures on the vinyl sheet.
• Raised diagrams of flat works

Painting, drawing, printmaking, photography and, in general, two-dimen-
sional works of art have to be described and explained verbally to a blind
visitor. But having a raised diagram available of the work in question is a very
useful complement to better understanding. Explanations of context alone,
even the most accurate descriptions, may not be enough.

Guidelines to consider:

- A raised diagram alone, without accompaniment or explanation of any
  kind, is something that is incomprehensible to touch.

- The raised version of a two-dimensional work helps blind people to reco-
gnise the shapes of the figures and objects represented in the picture, as
  well as their relative proportions and position to the edge of the canvas.

- Raised diagrams are suitable for representing not only drawings, but also
  signatures, borders, outlines, etc.

- Not all blind people can interpret lines and textures with the
  same ease. Prior training is required and those who have used
  these types of educational materials at school will be better versed in this
  skill. In any case, the tactile recognition of lines and textures is always an
  enriching learning experience.

- It is highly recommended to make the tactile diagrams on a colour repro-
duction of the work in question – in a simple DIN A4 format, for example
– and include the basic information of the label in printed text and braille. It
thus becomes an inclusive, easy-to-use element appropriate for both blind
and sighted people. In addition, people with poor vision can look at the pho-
tographic reproduction sheet as closely as they want and thus appreciate in
more detail what they find difficult to distinguish in the original work dis-
played on the wall.

*A special paper made of microcapsules that once printed and exposed to a heat source (oven
“swelling”) elevates the lines and patterns represented on the sheet.*
<table>
<thead>
<tr>
<th>Touch is sequential and analytic; sight is overall and synthetic.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tactile exploration requires time; it is a slow process.</td>
</tr>
</tbody>
</table>

Tactile element options for an exhibition:

- the original works themselves, if possible
- scale models
- full-size replicas
- location and direction plans
- raised diagrams
- display of materials from which certain works are made
- tools used for the technique

It is essential to have tactile elements.

Best to be strict and very carefully select a limited number of tactile elements.
Audio description (AD)

Short, condensed definition: the visual becomes verbal.

In the world of museums or exhibitions, audio descriptions for blind people will depend on the format and context:

<table>
<thead>
<tr>
<th>AD according to context:</th>
<th>AD guide features:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recorded on an audio guide.</td>
<td>Should be fun and easy to understand, designed for a diverse audience and, if possible, with sound effects.</td>
</tr>
<tr>
<td>As part of the commentary in a guided tour.</td>
<td>Can be further personalised and adapted to the characteristics of the listener (see guidelines listed below).</td>
</tr>
<tr>
<td>In audiovisual works, especially those containing many images without a narrative voice.</td>
<td>As in film and television, the script has to be very objective, simply explaining what is seen.</td>
</tr>
<tr>
<td>Printed as part of a dossier accompanying tactile diagrams.</td>
<td>For the descriptions to be read as text or braille, they should be more precise in terms of dates, exact sizes, etc.</td>
</tr>
</tbody>
</table>
Guidelines to consider to describe a work of art:

- Information on label:

Provide the same basic information as for any other visitor (title, author, date, provenance and, above all, size). Regarding size, it would be useful to compare it with another everyday, familiar object.

- General overview:

Provide a general overview of the work in question: what it is, what it represents, the type of composition, the colours, etc.

- Guidance and directions:

Provide specific, ordered information about the objects and figures represented in the work (a useful method is to refer to the numbers of a clock).

- Technique and material:

The technique and material used for a work of art is essential information that must be explained. According to each individual case, this may be mentioned sooner or later, in more or less detail.

- Style:

If required, mention the style (school, movement, period) to clarify specific characteristics such as the use of colour, subject or treatment in the representation.

- Clear, concise language:

This is the golden rule: clear, concise language is essential for a good description. If visual art terms or expressions are used (perspective, vanishing point, etc.), they should be explained.

- Indicate where the work is located within the space:

The position where the work is displayed is important, as is information about its spatial context and its relationship with other works on display.
- Use other senses to compare with sight:

In certain cases, it may be convenient to translate a visual effect to the feelings associated with other senses. For example, the notion of perspective in a painting allows for a clear analogy with sound (as a sound’s volume diminishes over distance, so too objects represented in paintings vary in size depending on depth of field).

- Contextual information:

Include the same contextual information about historical or social aspects as that given to sighted people.
Large-print dossier of the descriptive audio guide in the Tate Gallery (London).

Promotional brochure from the Barcelona Tourism Board in both large print and braille.
Large print and braille

Exhibition brochures and other informational sheets usually contain very small print that is difficult or impossible to read for much of the public. Alternative formats of printed materials must be provided so that everyone has the same opportunities.

Guidelines to be considered:

- A combination printed and braille version is the most desirable. If this is not possible, you can also provide separate versions: one in large print and the other only in braille.

- In both cases, it is appropriate to summarise the texts according to the aforementioned guidelines on readability and legibility.

- The large-print version can be very simple. Simply print the text on DIN A4 pages using Arial 18pt or 20pt and make these sheets available next to the original printed brochure or item.

- In the case of braille, a transcription of the content can be made on blank sheets to be offered to blind people.

- It is convenient to include a sign at the counter or stand with the brochures indicating that the same information is available in large print and braille.

Optical aids

Magnifying glasses and other optical aids are a useful resource for everyone throughout an exhibition route.

Examples of good practices:

- Loan of monoculars at reception for individual use by visitors who want to see the works on display in more detail without having to approach them too closely. For this reason, eyepieces are also useful for people in wheelchairs.

- Handheld magnifying glasses with lights made available at reading tables.

- Magnifiers next to certain small objects as part of the overall exhibition setup, to be used accordingly by each visitor.
Two visitors walking to the Cité des Sciences in Paris by following guide path strips.
**Guide paths and detectable surfaces**

Guide path strips that can be detected by blind people’s canes are becoming increasingly common in public spaces, especially in public transport (the underground, train and bus stations, etc.).

When adaptations for the blind are made in museums or heritage sites, a guide path route or strip on the floor is a measure that, while not a priority, promotes the autonomy of blind people and is also a useful aid for everyone. Even better is the added use of a colour that contrasts with the rest of the floor.

Examples of good practices:

- Install a route from the entrance to the floor plan located in the entrance hall (on the understanding that the plan has printed text, raised elements and braille).
- Use a tactile floor mark to indicate bases that have tactile resources and braille labels.
- Mark the route (in large, open spaces) to the auditorium or conference room.

**Multimedia audio guides**

New technologies offer a range of possibilities to make museum or exhibition content accessible. Multimedia audio guide devices and mobile applications (apps) help to incorporate accessibility measures such as audio navigation and audio description for blind people.

The use of these new technological resources is undoubtedly an opportunity to make cultural content available to everyone, but we must not forget that interpersonal communication and direct experience with works of art are irreplaceable.

**Specially designed tours and activities**

This is a very important resource because it involves interpersonal communication, an essential aspect for attracting audiences with visual impairments. It offers the possibility of creating specially designed tours, which is the minimum and essential thing to do. A heritage site may not have any material resources hitherto mentioned, but you must at least be willing to design some sort of custom-made tour or activity.
Some things to consider:

Can the general tour be made inclusive?

The first option would be to ask ourselves if the tour aimed at the general public may or may not also include the blind. Here is an example in which this assumption is not only feasible but also highly recommended:

- A guided tour of a sculpture exhibition in which everyone is allowed to touch some of the works on display. This is ideal because any individual blind person can naturally take part. It is always rewarding to share different ways of perceiving art because this encourages discussion and thought among both blind and sighted people.

Regardless of whether the general tour can be more or less inclusive, the most common thing to do is offer custom-made tours for blind or visually impaired people, including audio description and tactile elements.

- Fixed number of participants

If the tour has been scheduled to take place on a specific date, which has been announced on general information boards and thereby guaranteed, you should not set a minimum number of participants. If only one person has registered, the tour should go ahead regardless. The consistency and success of a scheduled tour cannot be measured quantitatively, but qualitatively.

Regarding the maximum number of participants, a limit should be set to guarantee the tour’s quality: no more than 6 in the case of blind people when there are tactile elements involved.

Making the visit more enjoyable

In addition to a script of the contents for accessible visits, there are some practical aspects that, although they may seem minor, are often critical to provide a successful experience. For example:

- The loan of folding seats is a universal accessibility measure that all museums should offer. When raised diagrams or other portable tactile elements are used in a guided tour for blind people, it is convenient to foresee the most ideal space and context for effective examination. So to be able to sit comfortably or have a small table to deposit the items to touch would be important aspects to take into account.
- Finally, a small detail to be considered regarding guide dogs is to have a bowl of water available for them at reception at the end of the visit. The person with the disability accompanied by the dog may or may not accept the offer, but the gesture would certainly be appreciated.

**Adapted activities**

All heritage sites usually offer programmed activities. You could design some activities that would indeed subvert the usual concepts associated with disability or integration. In other words, if you consider from the start an activity based on the special needs of people with visual impairments, you will not only facilitate the integration of other (in theory, quite capable) participants, but also implement an activity that raises awareness and, therefore, makes progress in terms of integration. For example:

- A poetry reading session in the dark with blind storytellers reading braille.
- A multisensory activity based on the senses of touch, taste or smell\(^6\).
- A live introduction and description (synopsis, context, scenery, etc.) can be given to the entire audience immediately before the show begins so that blind people can have a frame of reference and follow the show in equal conditions\(^7\).

In short, an effort must be made to explore new possibilities and assess their feasibility or convenience in each case.

\(^5\)There are some very lightweight folding chair models available that are especially designed for use by museum visitors.

\(^6\)A good practice is to provide eye masks to sighted people participating in an inclusive activity with blind people.

\(^7\)You should assess the suitability of this type of show according to each particular case. It is true that in many cases there will be the need for live audio description for blind people during the performance (alongside a braille programme, tactile recognition of props before or after the show, etc.). However, in other cases this formula can be very successful and is always very well received by everyone (and probably no printed programme of any type will be required).
Practical exercise of techniques for accompanying blind people (meeting of the Réseau Art Nouveau Network in Riga, October 2006).
6. Train customer service staff

Museum staff, especially those serving the public, should be very familiar with the accessibility resources that exist or are lacking. They need to know what these are, why they are there and how to use them. Nothing is more disappointing for blind people than visiting a heritage site because they know that it has a specific resource, only to discover that nobody knows anything about it. It is better not to create expectations if these cannot be fulfilled when the time comes.

On the other hand, relating to and interacting with people with a high degree of visual impairment may lead to uncomfortable situations when one is not accustomed to dealing with them. Overprotection is often mistakenly resorted to, and although they may be full of good intentions, incorrect attitudes and behaviour are the result of ignorance. A few guidelines should be kept in mind to avoid this.

Recommendations in dealing with the blind

- First, identify yourself and offer to help. But do not be offended if your offer of help is rejected. Helping is about aiding people with what they need or want; it is not about doing something for them that they can do themselves.

- Do not touch or hold people before addressing them.

- Speak to them in a normal tone; most blind people have very good hearing. When there are more people in the conversation, you can lightly touch the person’s arm to indicate that you are addressing him or her.

- You should look at blind people and address them directly, not their companions.

- Body language (movements of the head, hands, facial expressions, gestures) is not as important for blind as for sighted people.

- There is no need to avoid words like “see”, “look”, “sight”, “blind”, etc. They can be used naturally, as they form a part of their usual lexicon.

- You must offer one of your arms when accompanying blind people. They will normally hold this just above the elbow and will remain a half step behind you.
• When sitting down, simply accompany the person’s hand to the back of the chair and briefly describe where the seat is positioned (at the end of a long table, for example).

• Verbally indicate to them when there are stairs to climb up or down, turns to the left or right or other obstacles. Perhaps this will not always be necessary (they will realise if it is as they will be directly behind you), but it is convenient.

• Give them clear and concise directions (for example, “about three metres ahead”); words or phrases such as “over there” or “a little further on” are not helpful.

• Avoid unnecessary obstacles: doors are best left open or closed (never half-open), remove any chairs and position them at the table, etc.

• If you have to momentarily leave blind people, you should give them prior notice and best to provide them with a point of reference (a wall, bench, etc.).

• You do not have to be friendly to their guide dogs. Distracting them is quite unacceptable because they are working. You must understand that guide dogs are an aid for the blind and only they can interact with the animal. When walking, you must position yourself on the opposite side of the guide dog.

• Finally, if you have any doubts and are not exactly sure about what to do, the best thing is to ask the person you are attending in a natural manner.

In conclusion, remember that there is one golden rule: **act naturally.**

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**Behind a disability there is a person:**
see the person and not his or her disability.
Important:

**Assistance dogs:** A dog that has been trained, tested and certified to assist a person with disabilities.

There are four types of assistance dogs:

- **Guide dogs:** trained to guide blind people, these dogs wear a harness.
- **Service dogs:** trained to help people with physical disabilities.
- **Hearing dogs:** trained to alert a deaf person to sounds and their source.
- **Medical response dogs** for epileptics, diabetics, etc.: trained to give advance warning to their masters about the onset of an epileptic seizure or other medical conditions such as an attack of hypoglycaemia.
7. Be aware of web accessibility guidelines

For example, an accessible website allows for:

- Alternative keyboard navigation, which is essential for blind people (and also for many others who cannot use a mouse due to trembling hands or other diseases).
- The use of a screen reader (voice synthesiser used by blind people).

WAI guidelines, primarily aimed at developers and web editors, establish three levels of accessibility: A, AA and AAA. The optimal required by current legislation is AA.

Some of the common website accessibility problems include:

- images without alternative texts,
- links without any meaningful text,
- lack of associating tags in their corresponding form fields,
- data tables without any row and/or column heading information,
- incorrect use of structural elements on pages.

Website accessibility:

- is not incompatible with good graphic design,
- provides the required flexibility to ensure that information is accessible in different situations and especially on different devices (mobile phones, tablets, etc.),
- provides methods that help transform websites into pages that are easy, understandable and usable by everyone, and improves page ranking in search engines, because website sorting algorithms read pages in a similar way as blind people, thus all inaccessible content will not be read by search engines and this will adversely effect page positioning.

WAI (Web Accessibility Initiative) is the committee of the W3C (World Wide Web Consortium) that sets the guidelines so that everyone can access websites without distinction and without barriers.
8. Communicate accessibility resources

Ensuring website accessibility in compliance with an AA level is a necessary measure, but it is not enough to deliver information to blind users. You must also create a section in the website menu where users can find information about resources and facilities for people with disabilities that are available in museums or exhibitions. One thing is the section on website accessibility and another altogether is the section on accessing facilities, visits, activities, etc. The former provides information about how the website has been programmed, while the latter is the actual information about accessibility resources at the museum in question.

Recommendations to consider:

- Allocate a website section to accessibility and detail all the facilities offered according to type of disability.
- Also include the accessibility resources and adaptations in the general information formats (brochures, programmes, posters, etc.).
- Notify sector organisations and bodies that may be interested.
- Disseminate the information through social networks and specialist channels.
- When a statement concerning accessibility is issued or published, you should also give the contact details of the person in charge.⁹
- If a PDF document is sent or attached, it must be accessible (do not scan it as an image, because blind people will not be able to access it).
- The use of pictograms helps view things quickly.

⁹It is very important that an audience comprising people with disabilities, who usually require very personalised attention, can contact someone with a first and last name when requesting information or making a reservation, for example.
**Graphic symbols**

- **Accessible to blind or visually impaired people.**

- **Elements written in braille (dossiers, signs, leaflets, restaurant menus, etc.).**

- **Optical aids or large-print information.**

- **Tactile elements.**

- **Audio description (live, audio guide, recording, etc.).**

- **Guide dogs are welcome.**

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10° These graphic symbols are widely used in many countries and are thus quite standard, although the designs may differ slightly.
9. Listen to user feedback

It is important to collect user feedback from blind people about the accessibility actions that have been or need to be done.

In some cases, this is worth doing during the preparation phase, before or during the creation of a particular resource. Try out an accessible audio guide script with specific users, for example, before recording the voiceover, or test how a device works before deciding which one to chose. These measures can not only provide us with a very useful selection of test user opinions, but also allow us to identify an important aspect or detail that we had not taken into account earlier. Ask in advance for the help of someone in particular by asking either an individual (if we know that the person has sufficient knowledge and criteria) or through any representative association or body.

Another thing is to ask for opinions to obtain feedback on what has already been done. Ask questions such as: Did you enjoy the visit? What would you improve? What would you change? etc. This would provide very useful data for precise monitoring and especially to correct and improve things. This a posteriori evaluative consultation should be carried out by asking all visitors individually. Everyone has something to say and it is worth listening to these opinions.

10. Continuity and enhancement

Heritage site accessibility for blind people is still quite a new field. Although many successful experiences have indeed already been implemented, the road is still open. And there is still much to do.

Accessibility has to be seen as a long-distance race in which there is no turning back. Continuity is essential, once a particular resource or pilot experience has been implemented. Specific isolated actions do not imbue confidence in users when they see that these are not continued over time. It is very important to maintain a regular, constant supply.

We are faced with a new audience, often with limited integration into cultural life and little accustomed to discovering its potential for personal growth through art and knowledge. Cultural managers are also faced with new challenges that have been unexplored until relatively recently. In short, we must be bold when it comes to experimenting, but also willing to change in order to correct and improve.
ANNEX

Bibliography


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This project has been funded with support from the European Commission. This publication reflects the views only of the authors, and the Commission cannot be held for any use which may be made of the information contained therein.

Published by / Editeur responsable: A. Verkruysen
Service public régional de Bruxelles, Bruxelles Développement urbain
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