

Can a smell be a cultural heritage? Can we visit the museum by using the smell? Do we remember the smell of exhibitions visited in various museums?

While visiting the exhibitions inside museums, we admire the beauty of the artifacts we see. During the visit, our sense of sight is activated first of all. Additionally, when we use the audioguide, we use the hearing sense. We can also imagine that we use this sense when visiting a clock museum, or when we are just walking through a modern interactive exhibition on which screens emitting images and sounds, are exhibited. Recently, we can more and more often involve the sense of touch in the sightseeing process, because many modern museums provide visitors with contemporary copies of historic objects, so that they can touch a faithfully reproduced copy, we can examine its surface, get acquainted with its structure, or simply try it on, e.g. copies of a sword, crown, chalice. This is especially important for blind people whose sense of sight is not involved in sightseeing. Therefore, museums, in order to increase the attractiveness of visiting for the blind, prepare the described copies, which allow a blind person to create an image of the shape of an object based on touch. Are these all the senses that we use while visiting? It seems that an equally important human sense affected by the museum exhibition is the sense of smell. Perceptible smells can affect the aesthetic perception of the observed works of art. The aim of the project is to comprehensively investigate the smell of several selected historical objects of particular importance for the national cultural heritage. Objects of this class are usually displayed inside showcases for safety reasons. Consequently, their smell cannot be recognized by visitors. The smell of historic buildings can also be of particular importance to blind visitors to exhibitions, as their sense of smell is very sensitive as a compensation for lack of sight. Therefore, contrary to appearances, the smell of historic buildings may be of key importance to visitors. Particular historical objects, the smell of which will be examined, will be selected in cooperation with the curators and conservators. They will also be responsible for developing the odor history of selected objects.

The smell of historical objects of particular importance for the national cultural heritage will be investigated using several analytical techniques. Gas chromatography combined with mass spectrometry will allow the identification of volatile compounds emitted from selected objects, which create the characteristic historical smell of the objects. The smell of the objects will also be assessed by a panel of olfactometry experts. Using the sense of smell and the appropriate dictionary of smells, they will name the perceived smell of historical objects. The research will be accompanied by conservators.

The results of the research will be used to recreate the smell of the examined objects with the use of chemical compounds that are safe for humans and historical objects. The authenticity of the reconstituted smell will be assessed by a panel of experts specialized in olfactometry. Additionally, tests will be carried out to confirm that the recreated scents of historic objects, which are a mixture of chemical compounds, are safe for the objects exhibited in the museum and for visitors. Surveys conducted among visitors will help to assess how much more attractive visiting a museum is when, apart from sight, the sense of smell is also used during the visit. Ultimately, an International Archive of Historical Smells will be created.