Mojca Ramšak[1]

Olfactory Heritage in Slovenian Museums

ABSTRACT: Olfactory cultural heritage refers to the scents associated with objects, places, cultural practices, and traditions that serve as a testimony to the past. A study conducted in Slovenian museums between 2021 and 2024 found that museologists voluntarily include various aspects of olfactory heritage in their exhibitions and educational activities. They are largely aware of the importance of the scents emanating from objects and spaces for the fascination of visitors. However, it was found that there is a lack of museum strategies for olfactory heritage in Slovenia since there is no common strategy or set of standards for Slovenian museums, and there are no legal regulations in this area. Despite a response rate of only 49% (29 out of 59 invited museums participated), the reflections of the participating museologists on the role of smell in museums inspired by this research do give hope for greater utilization of this aspect of cultural heritage in the future.

Keywords: intangible heritage, olfactory heritage, anthropology of smell, museum, Slovenia

Vohalna dediščina v slovenskih muzejih

IZVLEČEK: Vohalna kulturna dediščina so vonji predmetov, krajev, kulturnih praks in izročil, ki pričajo o preteklosti. Na podlagi raziskave v slovenskih muzejih med leti 2021 in 2024 je bilo ugotovljeno, da muzealci predstavljajo različne vidike vohalne dediščine samoiniciativno in kontekstualno v sklopu razstav ali pedagoških dejavnosti ter da se večinoma zavedajo vloge vonja predmetov in prostorov za pritegnitev obiskovalcev. Ugotovljeno je bilo tudi, da v zvezi z vohalno dediščino v Sloveniji ni razvitih muzealskih strategij, saj slovensko muzealstvo tudi sicer nima skupne strategije in standardov niti ga ne regulira področna zakonodaja. Čeprav je bila odzivnost na raziskavo 49-odstotna (29 muzejev od 59 povabljenih k raziskavi), pa razmišljanja sodelujočih muzealcev o vlogi vonjav v muzejih, ki jo je sprožila ta raziskava, obetajo, da bo v prihodnje ta vidik dediščine bolje izkoriščen.

Ključne besede: nesnovna dediščina, vohalna dediščina, antropologija vonja, muzej, Slovenija

1 Dr. Mojca Ramšak, University of Ljubljana. E-mail: mojca.ramsak@guest.arnes.si. The article was written as part of project J750233 (Smell and Intangible Cultural Heritage), funded by the Slovenian Research and Innovation Agency.

Introduction

Olfactory heritage is an aspect of cultural heritage concerning smells that are meaningful to a community due to their connections with significant places, practices, objects or traditions (Bembibre and Strlič 2022), and can therefore be considered part of the cultural legacy for future generations. Olfactory heritage science is an emerging field of research, focused on scientific techniques for analysing, documenting, and preserving odours and perspectives in order to understand their relevance.

Research in olfactory heritage is based on many disciplines, such as medicine – neuroscience, chemistry, anthropology, archaeology, conservation science, philosophy, psychology, history, museology and heritology. The dominant literature on olfactory culture focuses either on linguistic semiotic analyses of olfactory ideas that essentialize smell as a universal language (e.g. Majid 2015; Majid 2021; Majid & Levinson 2011; Digonnet 2018); on anthropological comparisons of olfactory meanings that highlight similarities and differences across cultures (e.g. Howes & Classen 1991; Classen et al. 1994b; Drobnick 2006; Aspria 2009; Le Breton 2017), such as in travel diaries (Tullet 2016); studies of behaviour (e.g., sexual life) and rituals in which smell plays an important role (e.g. Mallinowski 1929; Lévi-Strauss 1969; Jellinek 1951); historical perspectives on smell (e.g. Corbin 1986; Reinarz 2014; Bradley 2015; Tullet et al. 2022), the role of olfactory manipulation in a consumer society (Hultén et al. 2009); or the smell of cultural heritage (e.g. Bembibre Jacobo 2020; Bembibre and Strlič 2022), and in this context the possibilities of imitating and simulating smell in museums and explaining the meaning of the smells of museum and gallery objects and experimental exhibition replicas (Verbeeck 2016), as well as the ethical and practical dimensions of using smell in museum premises (Ramšak 2023).

Anthropological and related research on smell was elevated from academic to normative level at the end of the 20th century with the first documents regarding the protection of olfactory heritage. Among these documents, the *Burra Charter* of 1999 is particularly important. This was the first document to give smell a place in cultural heritage, and was prepared by the Australian ICOMOS (International Council on Monuments and Sites). In the introduction to the charter, it defines what the concept of cultural significance means and how smell is included in this concept.

Smell was indirectly recognized as part of the cultural heritage in the 2003 UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage (UNESCO 2003). Although UNESCO did not directly recognize smell as intangible cultural heritage in its definition of intangible cultural heritage, elements such as food and culinary practices, folk medicine, religious rituals, ritual purification, etc., were indirectly included. In 2018, France nominated the skills associated with perfumery in the Pays de Grasse: the cultivation of aromatic plants, the knowledge and processing of natural raw materials, and the art of perfume composition for inscription on the Representative List of the Intangible Cultural Heritage of Humanity (UNESCO 2018a; UNESCO 2018b). Given that there was no mention of smells among the elements inscribed on the organization's list, the recognition of Grasse's olfactory heritage nevertheless set an important precedent (Bembibre and Strlič 2017). However, until 2021 and the adoption of the French Sensory Heritage Law (Loi no. 2021-85), the recognition of smells as cultural heritage was neither widespread nor universal.

By reviving historical scents, we can experience cultural, social, historical, artistic-aesthetic and other meanings of artefacts in a new way and communicate the significance of these smells to museum audiences. This idea serves as the basis for olfactory museology (e.g. Drobnick 2014; Stevenson 2014; Levent et al. 2014; Howes 2015; Verbeeck 2016; Nieuwhof 2017; Spence 2020).

From an anthropological perspective, it is essential to comprehend smell and its significance in relation to culture. In preserving, recording, archiving and presenting smells to visitors as a part of cultural heritage, museums face some of the most difficult challenges due to the impermanence and intangibility of odours. In addition, olfactory museology introduces some concepts that were mentioned earlier in relation to work in anthropological and other museums (such as in Lévi-Strauss 1963, 375; Vergo 1989, 25; Maroević 2020, 55).

Textual and visual sources can provide valuable information for recording and interpreting smells and memories of the past. Sometimes this information is also consistent with material evidence such as artefacts (Bembibre and Strlič 2022, 134). Scientific research on odours emanating from objects focuses on the potential harm that volatile organic compounds

and chemicals cause to objects, collections, and visitors (Bembibre and Strlič 2022, 134; Kraševec et al. 2021).

The key concepts of olfactory museology in Slovenian museology are undoubtedly the definitions of an olfactory object, an olfactory exhibition and an olfactory gesture. These definitions were originally established by Ramšak in 2023 (63, 69–70).

The proposed working definition of the term 'olfactory object' (or 'olfactory artefact'), deriving from the research of smell in Slovenian museums and based on their artefacts, refers to the connection between an object and/or odorous substance and history. According to this definition, the term olfactory object (or olfactory artefact) should refer to historical items and/or substances known to emit odours; items and substances known to contain odours; scented historical spaces (indoors and outdoors, such as a smoke room with an open fireplace, a herb garden, a wooden field toilet); historical writings describing historical odours; and illustrations, paintings and photographs showing or referencing olfactory objects (people or animals, such as dogs and civets; plants, such as flowers; items like fruit, onion, garlic and food in general, cigarettes, or dirt; gestures, and practices referring to smell, such as smoking). An olfactory museum object is also a scent-based installation that allows visitors to explore the smells of a museum or gallery. It consists of one or more scented devices programmed to release a variety of odours into the space or scented objects that allow visitors to experience historical or other smells in a new and interactive way, creating a unique olfactory experience. A scented object is often used in conjunction with other artworks in the museum in order to create a multi-sensory experience.

Along with the concept of the olfactory object comes the 'olfactory exhibition'. Looking at past or existing exhibitions that incorporate smells, an olfactory exhibition can be defined as one that focuses on smells. It often includes a wide variety of olfactory objects, scents, aromas, perfumes, and other sensory experiences that stimulate the sense of smell, explore the history of a particular odour or historical object in relation to smell, examine the connection between smell, memory, emotion and identity, or present the science of olfaction. An exhibition that engages multiple senses may also include an olfactory component.

Since visitors react to smells or to smells that are represented in paintings with different gestures or poses, such expressions could be considered an 'olfactory gesture', a kind of non-verbal communication used to elicit a specific emotion, or create a certain atmosphere. Examples of olfactory gestures include emphasized sniffing, inhaling or smelling to signal the presence of an odour; closing the nostrils with one's thumb and forefinger to signal an unpleasant odour; quickly fanning the palm of the hand in front of the nose to signal that one wishes to get rid of the odour as soon as possible; fumigating rooms, e.g., with holy incense; smoking; and perfuming. Characteristic facial expressions like a wrinkled nose, lowered eyebrows, a raised upper lip, and a raised and slightly protruding lower lip can be used to identify disgust with an unpleasant odour. A gesture can also become a figure of speech, such as when someone says, 'Hold your nose,' indicating unpleasant odours, e.g., 'When you pass by there, hold your nose!' Olfactory gestures and olfactory practices occasionally intersect. Both olfactory gestures and olfactory practices reflect everyday habits and repetitive rituals. They are found depicted in pictures, photos, illustrations and sometimes on other artefacts, or described in written texts (Ramšak 2023, 63, 69–70).

These ideas are still new in Slovenian museums, although they have been partially adopted elsewhere since the 1990s.

The olfactory properties of cultural heritage objects and sites are not systematically researched or documented, let alone preserved and protected. As a result, little is known about the smells of the past. However, there are also shining exceptions. For example, Inger Leemans, a renowned Dutch cultural historian and leader of the pioneering pan-European project on the history and culture of scents in Europe called 'Odeuropa' (2021–2023), together with her esteemed colleagues, has categorised research on the history and culture of scents into several groups that are closely linked to the preservation of cultural heritage (Leemans et al. 2022). These categories include the following: a) conservation and restoration of museum objects related to scents; b) olfactory reconstructions of historical artefacts with distinct smells; c) restoration of lost scents using well-preserved recipes; d) development of comprehensive historical olfactory museum exhibitions; e) presentation of museum exhibitions with one or a few ol-

factory artefacts; f) production of artistic creations that combine historical accuracy with imaginative transformations (ibid.).

Today, the exhibitions of the smells of museum objects and ambience or the recombination of multimodal sensory exhibitions are becoming increasingly common worldwide. The use of all the senses, which was most common in open-air museums, has also found its way into exhibition spaces. Many museums, galleries, and libraries offer a tour of olfactory artefacts and scented rooms along with an artificially created scent, a reproduction of historical smells. Examples of museums with smell exhibitions include the International Perfume Museum in Grasse, Osmothèque in Paris, Prado Museum in Madrid, the Mauritshuis Museum in Haag, Museum in Eindhoven, Huygens' Hofwijck in Voorburg, Museum of London Docklands, British Museum, Natural History Museum in London, Tower of London, Winston Churchill's Britain at War Experience in London, JORVIK Viking Centre in York, Museum Ulm, National Geographic Museum in Washington D.C., The Metropolitan Museum of Art in New York, Boston Museum of Science, Children's Museum of Indianapolis, Vatican Museum in Rome, etc.

Methods

The research was conducted between 2021 and 2024. In order to obtain data on olfactory objects in Slovenian museums, 59 Slovenian museums were asked by email to provide data on olfactory artefacts and their descriptions, which are kept in museum documentation. A general description (dimensions, origin, time of origin, function, conservation interventions – this is important in the case of odours, as they blur the traces of original use) and a photograph were also requested for objects that corresponded to the above data. At the same time, museums were asked for a list of objects that still contained components associated with smell (e.g., perfume bottles, pharmacy containers and their contents, personal hygiene products, gunpowder...). Due to the complete lack of research in this area in Slovenian museums and to avoid misunderstandings, a brief definition of olfactory objects with examples was included with the email request for cooperation. This description indicated the direction in which curators should think when selecting objects, namely scented objects that smell by themselves (e.g., perfume bottles), objects that no longer smell due to

restoration and conservation interventions but were used in conjunction with smell (this group may include perfume bottles and the like but also at the opposite end, chamber pots, for example), objects that are strongly associated with smell (e.g., painted beehive panels associated with honey, meadows, and forests), and documents, frescoes, and paintings depicting smell, smoke, or air.

Twenty-nine (29) museums (49% of all those invited) provided detailed responses, although some museums asked for more details and clarification about their olfactory heritage. Most frequently, museum directors instructed curators to select the most representative items from their collections, and some museums also provided a numerical estimate of the olfactory objects in their collection. Only a small number of museums stated that they had no olfactory artefacts. Data and reflections on museum odours were contributed by 49 curators, conservators, restorers, and other professionals.

Purpose and Goals

The purpose of collecting data on olfactory heritage in Slovenian museums was to determine which types of museum objects, exhibits or documents are directly or indirectly associated with smells (odours, fragrances, flavours, perfumes, medical and pharmaceutical smells, industrial heritage, etc.) in order to gain an overview of the state of olfactory heritage in Slovenian museums and how, if at all, museums use olfactory objects and stories about them to present heritage.

Results

The analysis of selected olfactory artefacts from Slovenian museums reveals certain common characteristics of these objects, on the basis of which a taxonomic scheme can be developed.

Slovenian national, regional, local or private collections preserve and display olfactory objects from the following categories: a) objects in the strict sense; b) scented interiors and exteriors; c) written documents; d) narratives used in exhibitions with olfactory explanations; and, additionally, sell e) fragrant objects related to cultural heritage and its interpretation in museum stores.

In most cases, the museums that complied with the request added their exact number or a numerical estimate to the descriptive data of olfactory objects, especially if there were several objects of the same type. Based on this data, we can estimate that Slovenian museums keep several hundred olfactory objects.

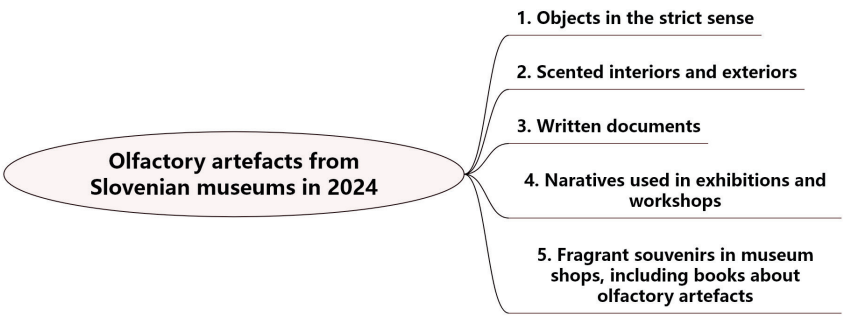

Figure 1: Scheme of the typology of the most common olfactory objects in 29 Slovenian museums in 2024.

Typology of Olfactory Objects from Slovenian Museums

A) OBJECTS IN THE STRICT SENSE

- *Objects directly related to fragrances:* perfumes, colognes, perfume or cologne bottles and/or their packaging, perfume bottles with atomizers, car air fresheners.

- *Objects related to cosmetic products:* lotions, universal creams and face, hand, baby and sunscreen creams, test samples of creams in small packages, promotional leaflets with test samples; antiseptic gels and tonics for impure skin; hairdressing preparations; soaps and their packaging, such as soaps made of animal fat and lye for washing and personal care, laundry turpentine soaps, small hotel soaps, perfumed soaps, hand washing lotions; toothpastes for children and adults; nail polish; billboards advertising cosmetic and hygiene products.

- *Hygiene objects:* porcelain washbasins with water jugs, soap and shaving dishes; antique hand-blown glass or ceramic balsamaria for storing scented oils, cosmetic and medicinal preparations, and aryballos, i.e., spherical bottles for storing scented bath oils; chamber pots, field toilet

with manure pit, portable wooden toilet, portable toilet for mines, tools such as manure scoops or buckets; standing enamelled metal spittoons for spitting out chewing tobacco, washing powders in cardboard or printed cotton packaging, dishwasher tablets.

- *Objects related to (folk)medicine or pharmacy:* furniture of old pharmacies; pharmaceutical ceramic and glass containers; packaging of pharmaceutical products; medical equipment such as midwife bags with accessories, surgical tools, or other items from dispensaries, hospitals, and partisan hospitals of World War II; individual medicine bottles and collections of medicines, such as anthelmintic (medicines to treat intestinal parasites); anaesthetics, ampoules; tubes of ointments such as zinc paste with fish oil, antiperspirant ointment; first aid kits for personal protection in case of exposure to biological chemical substances from the late 1960s; dried herbs (mint – several types, linden, lemon balm, chamomile, oats, hemp-agrimony, hazel, goldenrod), herbal teas, herbs in brandy (e.g., arnica, yarrow, common rue); tinctures (e.g. with comfrey, yarrow), bottles with unknown liquids; aromatised wines, apple cider vinegar, aromatised apple cider vinegar (e.g., with garlic, honey or tarragon), honey and honey with hazelnuts and walnuts).

- *Objects related to smoking:* snuff boxes, tin packaging for tobacco and cigarettes, cigar mouthpieces, cigar cutters, pipes made of various materials (wood, clay, porcelain, sea foam), cigarette cases, table cigarette boxes, cigarettes, cigars, 'viržinke or Virginian cigars' (thinner, longer cigars with a straw).

- *Objects related to criminality:* The collections of the Slovenian Police Museum contain traces of odours left behind by the perpetrators of criminal offences and were found with the help of trained dogs. Among the objects associated with smell is a burnt wooden Molotov pole made by the perpetrator of the fire. There are also criminal cases with descriptions of fires and the smell of smoke. The publication on the history of the museum (Debeljak 2006) also describes the development of the training of police dogs ('drug sniffers', 'ruiners'), which are trained to search for people or objects by smell.

- *Clothing:* underwear, feminine hygiene products; uniforms; sacramental clothing.

- *Ritual objects:* ecclesiastical vessels for incenses, holy oils, and sacramental wine (e.g., a censer with which the priest incenses the altar; a 'small boat' (vessel) containing grains of incense; a spoon with which these grains are placed in the censers; incense burners; vessels for holy oils, e.g., a chrismarium for holy oils; a sacristy oil set; a leather set with lid for storing bottles of holy oil used by the missionary among the Indians; a glass wine goblet).

- *Paintings and frescoes:* paintings with the theme of allegory of the senses (e.g., sense of smell); scenes depicting still life with bouquets of flowers; a mourning offering; seascape (sea scent); a person in the kitchen; food, e.g., bread; frescoes with figures, e.g., angels holding censers; postcards.

- *Kitchen utensils:* various vessels and utensils used for preparing, processing and consuming food and drink (e.g., archaeological vessels or fragments of pots with burnt food; the ritual vessel with several smaller cups connected to the central vessel by gutters ('kernos'); ceramic vinegar containers; salt and pepper shakers and other containers for spices; honey dispensers; a mechanical device for determining the fat content of milk; aluminium container with lid for transporting milk to the dairy ('kangla'); butter churn with handle and wooden lid for making butter ('pinja') and other tools, equipment, measuring instruments for cheese making and dairy; tin cup for wine; bottle with handle and glass stopper for liquor, cup for beer; drinking vessels for wine, beer, liquor; jezvas (coffee pots)).

- *Beekeeping:* bee hives, 'kranjič' beehives, honeycomb frames, beehive front board paintings smell slightly of wood, paint and coatings, when dirty they also smell of mould and dust; beekeeping accessories that in the past smelled of wax, propolis and honey; bee products are in sealed packages and have no smell; certificates and insignia of beekeeping associations, as well as old books smell of mould and dirt.

- *Crafts:* technological processes in various crafts are related to the substances with which the materials were processed, or to the materials themselves.

For example, to illustrate the smells of leather and shoemaking, the Tržič Museum keeps 'bottles that smell or reek of fish oil, which was used to lubricate shoes to keep the leather waterproof – visitors can also see this in the film; tannin from spruce bark, which was used to tan leather and smells like spruce resin; shoe ointment, which consists of various sub-

stances used by a restorer to preserve leather objects. When touring the permanent exhibition, the curators also point out that there was always an odour in and around the tanneries that many visitors still remember. Rot occurred during the processing of the leather, and chicken excrement was also used, which can be seen in a display case. The tanners' boots, which were called 'štalonarji' – the name comes from folk etymology because they smelled like a stable ('štala') – are also on display, and a short narrative about their smell is presented in the film.' (Information from the curator at the Tržič Museum, Bojan Knific, 14. 11. 2022 and 3. 2. 2023).

Another example comes from the Museum of Ribnica, where in the exhibition of wooden wares ('suha roba') and pottery from the Ribnica Valley, the smell of the material is highlighted twice as an important factor. For the wooden wares, which created a special way of life and represented a considerable source of income for the rural inhabitants, the wall next to the wooden products reads: 'With every breath they took, the smell of wood was written in their genes.' Similarly, the smell is emphasised in pottery, a craft that was also important for this region. In the film shown in the museum, one of the potters invites the audience with the following words: 'God bless you! If you are in the right mood, approach the clay and see if it smells good to you.' (Information from the exhibition at the Ribnica Handicraft Centre, Museum of Ribnica, noted by Mojca Ramšak on 10. 2. 2023). In addition, one of the curators explained that in 2003 she wanted to include smells in the exhibitions and wrote this down on her written exam as a curator. (Information from curator in Ribnica Museum Marina Gradišnik, 12. 2. 2023).

- *Industrial heritage:* vehicles, submarine, industrial machinery. In museums with technical and industrial heritage, the metallic smell of machinery, the smell of oils and grease, and the smell of wood are present on the artefacts and the ambience. The technical heritage is also exhibited in other museums that have collections on craft activities such as blacksmithing, and it has been reported that some items from these collections still have an odour.

When reflecting on the smells of museum objects, one of the curators concluded that in the museum 'the role of smell was never particularly questioned, but smells were included in experiential programmes and

used to complement the occasional installation of scent exhibitions. In no case was it about highlighting museum objects.' In the exhibition there are 'a few objects that have a smell but these do not have the function of achieving anything with the smell (e.g. a bag of coffee, a pack of tobacco, associated with contraband, bottles of medicine). Other objects are also placed in display cases for protection.' She concluded that 'curators do not usually use objects with a smell to communicate something to visitors.' (Information from curator Mirjam Gnezda Bogataj from the Idrija City Museum, 17. 11. 2022).

B) SCENTED INTERIORS AND EXTERIORS

Open-air museums often have a variety of spaces that have a smell, such as gardens, herb gardens, orchards, and farmyards. The smell of freshly cut grass, flowers, herbs, and fruits can be experienced in these spaces. In some open-air museums, as well as in situ preserved homesteads you can also smell the smoke of a wood-fired stove or fireplace and the smell of food prepared in workshops, as well as the smells of clay, wood and straw.

When visiting these homesteads, some children immediately comment on the smell of smoke with 'Wow, that stinks', signalling that it is the smell that first attracts their attention. They want to know what stinks. There are similar comments about the field toilet, which, although it is no longer used and therefore does not smell, causes visitors to associate it with defecation and gesticulation; visitors 'hold their noses to avoid unpleasant odours.' The forges, where iron is still forged for educational purposes, also have a specific smell (information from Nives Brezovnik, Rogatec Open-Air Museum, 16. 11. 2022).

Historical buildings, such as castles, can be completely permeated with an unpleasant odour despite restoration efforts, especially near chimneys and even more so during changing weather conditions. The smell of damp walls is also unpleasant, and therefore, during special tours of architecture and building development, curators include this perception in their explanations when talking about the effects of dampness on cultural heritage (information from curator Helena Rožman in Krško Cultural Centre, Rajhenburg Castle, 21. 11. 2022).

Curators have also noted *other smells in museums,* such as the smell of dampness, deposited dust, dirt, wood, mould, and unventilated areas in

depots, particularly if they are not air-conditioned. Workshops for restoration and conservation have a paint, varnish, and turpentine odour.

In some Slovenian museums, the scenting of the toilet rooms is carried out by external contractors (e.g. in the Slovenian Ethnographic Museum), or the choice of fragrance is left to a cleaner who also procures the cleaning agents (e.g. in the Dolenjska Museum Novo mesto).

In some museum educational programs, smell is also a theme in the workshops, such as 'preparing herbal bread and working with chocolate to trigger olfactory memory. The fair part of the events [related to the heritage of chocolate making by the Trappist monks, who were the first in Slovenia to have industrial chocolate production] is more successful when the sale of chocolate products takes place in the hall and not in the atrium. The atrium is nicer in terms of ambiance, but a smell develops better in a closed space, and so visitors are more relaxed. The smell is otherwise not present in the exhibition itself.' (Information from curator Helena Rožman in Krško Cultural Centre, Rajhenburg Castle, 21. 11. 2022).

One of the curators concluded that when you start thinking about the smell in the museum, you find that 'every room has a recognizable smell'. (Information from curator Mirjam Gnezda Bogataj from the Idrija City Museum, 17. 11. 2022).

C) WRITTEN DOCUMENTS, such as rare old books, documents, and manuscripts are kept in the museums. These documents contain information about smells from the past, and as cultural heritage objects they have their own scent that can be studied from the perspective of degradation of materials.

D) NARRATIVES USED IN EXHIBITIONS WITH OLFACTORY EXPLANATIONS are either stories told by curators, most often spontaneously, or recorded and presented as short films. We can conclude from the museum data collected that museologists frequently consider smell when interpreting cultural heritage. Although this is an indirect reflection of this, these data are important for the advancement of olfactory museology.

In 2022, the Ljubljana Sugar Factory Gallery ('Cukrarna'), which belongs to the Museums and Galleries of Ljubljana, prepared multisensory tours of the building, which was a sugar refinery from 1828, but was no longer in operation after a fire in 1858 and lay in ruins until 2021, when it became a gallery. Part of these tours is also a presentation of the smell of fires that

were constant companions of the Cukrarna Gallery – from the first one, which successfully turned the sugar refinery into a fire pit, to the smaller fires that lasted in the Sugar Factory until the renovation, and in recent years, were mainly due to open fireplaces with which the inhabitants tried to warm themselves (Vošnjak 2023, 45). For this purpose, the Cukrarna Gallery provided sensory aids, packets of charred wood with the smell of smoke. Smells are rarely preserved on artefacts or in historical spaces, so interpreting a particular smell in the form of an olfactory experience is only a guess as to what kind of odour an object or place is supposed to emit. For this reason, the Sugar Factory drew on the literary works of Ivan Cankar, in which he describes the smell of the Sugar Factory as damp, musty and mouldy. To recreate these smells, visitors were offered sheets of paper soaked in geosmin, a natural compound whose smell is reminiscent of fresh, damp earth. In connection with the Cukrarna Gallery, visitors do not associate a freshly soaked forest, but rather the smell of an old building. Unpleasant smells of smoke, tobacco and damp are therefore part of the tour, but they do not deter visitors from visiting (Vošnjak 2023, 47).

E) FRAGRANT OBJECTS RELATED TO CULTURAL HERITAGE AND ITS INTERPRETATION IN MUSEUM STORES AND BOOKS ABOUT OLFACTORY ARTEFACTS

- *Scented soaps and other cosmetic products:* Several Slovenian museums sell scented souvenirs. Some large museums offered cosmetic products in their online or museum shops at the end of 2022. Most of these were scented soaps in a variety of shapes and scents inspired by cultural heritage. For example, in December 2022, the Slovenian Ethnographic Museum sold soap in the shape of a 'gibanica' with the scent of added essential oils of cinnamon, cloves, and oranges reminiscent of this dessert; various herbal soaps with the scent of thyme, marigold and sage, as well as relaxing baths whose names come from folk tales such as the Forest Spirit and the Fire Night. At the same time, the City Museum in Ljubljana sold 'mosaic soaps' with motifs of Roman mosaics from the city centre and natural sponges. For Valentine's Day 2023, the National Museum of Slovenia has started selling scented soaps based on gemstone motifs, small ornaments with carved relief images of carnelian or agate inserted into gold rings, or a gold pendant. These soaps have the motif of two shepherds, a bird and a dolphin

based on gemstones from Gradec near Velika Strmica from the 1st century BC and the 5th or 6th century BC. The Posavje Museum Brežice offered herbal drops and ointments from a local herbalist, as well as a cloth bag with a mythological washing motif from the fresco in the castle's Knights' Hall.

- *Anniversary souvenirs:* niche products with a story, such as packets of ground coffee in 100-gramme packets commemorating the dates of birth or death of famous Slovenes (e.g. Jože Plečnik, architect – anniversary coffee was available in several museum shops in Ljubljana at the end of 2022; Hugo Wolf, composer – anniversary coffee of the Carinthian Regional Museum). In December, before the turn of the year 2022, the Carinthian Regional Museum organised a Facebook competition with questions about the composer Hugo Wolf, who was born in Slovenj Gradec. The correct answers earned the players a 'tempting prize', namely 'Wolf's coffee with cream', which the museum has otherwise been offering in the museum shop since 2018, and also serves in several bars in Slovenia. This coffee blend had a slightly fruity-sweet flavour and tasted of caramel and hazelnut. In 2022, on the occasion of the 150th birthday of architect Jože Plečnik, several museums in Ljubljana sold Plečnik's ground roasted coffee, a Brazilian blend with the flavour of dark chocolate and ground nuts, in the museum shops. In addition to the shelves of Plečnik's coffee, the museum shop in the Slovenian Ethnographic Museum was scented with coffee fragrances supplied by an external contractor. Both Plečnik's and Wolf's coffee were wrapped in brown paper, reminiscent of the color of a paper bag and the time when the products were wrapped or filled in it.

- *Other scented products:* scented medicinal products such as beeswax candles, room fragrances named after motifs from folk tales (Forest Spirit and Fire Night), handmade chocolate products from local chocolate shops. At the same time, it is also worth mentioning the offer near the museums, which belongs to other companies. For example, in the premises of the monastery in Stična, in the immediate vicinity of the Museum of Christianity in Slovenia, a herbal company has been operating since 1992, which continues the herbal tradition of the Cistercian monk Father Simon Ašič and sells various tea blends, tinctures, ointments, honey wines, honey liqueurs, walnut, edible and massage oils, spreads, mustards and vinegars. Some of these products or their packaging are on display in the museum

and the museum curator has highlighted them as an area of olfactory heritage and folk medicine.

- *Books on olfactory artefacts in museum shops:* they explore the intersection of scent and culture, examining how scents can enhance the understanding of historical objects and enrich the museum visitor experience. One example of such a publication is a catalogue with cultural and scientific explanations of the scent of tobacco, based on a study of smoking paraphernalia in the National Museum of Slovenia (Knez 2024).

Discussion

While museums were once spaces that encouraged the handling of objects as a way of exploring them, these practices changed in the 19th century with increasing the number of visitors, potential for damage to collections, and more sophisticated display techniques that allowed objects to be seen clearly without touching them. Visual communication is still dominant in the museum of today; however, all experience of the world is multisensory. A better understanding of the benefits of a multisensory approach since the turn of the century has led to many heritage institutions staging multisensory exhibits. The inclusion of smell in museums can be related to attracting more visitors, adding a dose of realism to the displays, exploring the connections between olfaction and other senses and even claiming a space for perfume as an art form. In addition to engaging the visitors to rethink the past as an odorous place, smells in museums can also be a way of relating to the world of the other.

According to the data collected during the research, the first installation of a comprehensive multisensory exhibition in Slovenia dates back to 1993. As the retired ethnologist who set up the Trenta Museum recalls, her ambitions for a multisensory exhibition were greater than the understanding of that kind of museology at the time. 'This was a redesign of the old Trenta Museum, with the basic idea of the layout adapted to the concept of the Triglav National Park – a balance between nature and culture within the framework of national parks. Therefore, the collection of the Trenta Museum in the attic of the Information Centre of the Triglav National Park had not only the purpose of exhibiting objects and photographs of the cultural heritage of the Trenta Valley but also an educational significance. We wanted to give

the visitor the feeling of being transported to the time and place of Trenta at the end of the 19th century – by stimulating the eyes, touch, hearing, and smell (the taste we would leave to the culinary offer of Trenta). Therefore, in addition to the original and reconstructed elements of the black kitchen, the main room and the cheese dairy on the mountain, we wanted to present the former settlement of Trenta, the culture of Trenta houses and mountain huts. A more detailed concept actually emerged spontaneously in conversations with the designers. I wanted the most faithful reconstruction of the building layout as possible, in which a film set construction company participated – masons for the construction of siporex walls, facade workers, and carpenters for the reconstruction of the furniture. In the reconstruction of the black kitchen, original ceiling beams were used because they had a smoky smell. The beams were transferred from a collapsed house on the left bank of the Soča river and transported across the riverbed. The team brought elements of the interior of the shepherd's hut from the Trebiščina mountain on their shoulders, and we also acquired the original cheese kettle. Finally, patination achieved the most authentic appearance of the ambiance for the visual image, accompanied by lighting effects; the accessibility of objects that were not protected by glass provided the sense of touch; you could sit on them and touch the wooden furniture; for the smell, the smoked beams, freshly stacked firewood on the outer wall of the reconstructed museum house and the floor strewn with bark; we also planned to set up spruce logs and bring the smell of the forest, as well as the smell of milk and cheese from the dairy with wheels of cheese on the shelves. Unfortunately, the museum lacked the money and also the will of the people in charge of the Regional Museum Goriški Muzej and the Triglav National Park to realize the idea of the smell in the long term. There was also no money to realize the sounds of birds singing, the rustling of the wind in the treetops, and the occasional bleating of sheep… Some of these ideas were used in other parts of the museum, but we had to end the museum with a classic museum exhibit – photos and objects in display cases. I myself had to tear out of my heart the Trenta and unsung ideas about the museum design of the Trenta Museum and leave them to their further fate. I am only satisfied that the original design of the house and the shepherd's hut is still relevant and interesting, even though the original smell of beams from the black kitchen

has already dissipated.' (Information from a retired curator Inga Miklavčič Brezigar from The Regional Museum Goriški muzej, 7. 3. 2023 and 3. 3. 2023)

Similar to this example was the concept of a permanent exhibition at the Slovenian Ethnographic Museum in the new exhibition building on Metelkova Street in Ljubljana, which was supposed to include a 'stage set' or 'the smell of food, fire and smoke' (Žagar Grgič 1996, 63). Unfortunately, this stage set was not realised (information from curator Nena Židov from the Slovenian Ethnographic Museum in Ljubljana, 20. 5. 2021).

Some Slovenian museums went even further and wanted to go beyond the showcase or the scenic setting and used fragrances in performances. In 2010, for example, the Museum of Contemporary History in Celje organised the art project 'Don't Throw Away Old Pots' in collaboration with artists, in which they interpreted Emo's rich collection of enamel pots and accompanied the event with the scent of beef soup. 'The basic exhibition concept from which the artists started was the container with existing collections and newly collected pieces, freely placed in different contexts and environments. The art installation by visual artist Marko Požlep created the atmosphere of home kitchens and family stories with the smell of beef soup cooked in an Emo pot and the sound recordings of recipes.' (Roženbergar Šega 2011, 175) Artist Mark Požlep commented that with his work he wanted to present 'the wide use of Emo pots in everyday life and thus a platform for memories and feelings that allows the visitor to relive or recreate the moments of the recent past through the active experience of smell, sound and narration. The installation consisted of seven Emo pots equipped with electric burners on which beef soup was cooked.' (176) The Slovenian company Etol [founded in 1924], which at the time still produced artificial food flavours, created a beef broth fragrance especially for this exhibition, which had an invigorating effect and represented the added value of the enamel pot installation. The museum acquired it by asking people to bring used pots, which were deposited in a large container in the museum lobby (information from curator Tanja Roženbergar, Slovenian Ethnographic Museum, 2. 2. 2023). The smell of beef soup, which for many Slovenians still symbolises the opening part of Sunday lunch and was usually prepared in Emo pots from the Slovenian manufacturer, symbolised part of the identity and belonging to the community.

Later, smell began to be used in museums as a means of engaging vulnerable groups. This is evidenced by the records of museum staff's efforts to bring cultural heritage from museum collections closer to people from vulnerable groups using multi-sensory technology.

In 2014, the National Museum of Slovenia prepared an interesting experiment with smell related to the accessibility of cultural heritage for vulnerable groups and the provision of technical conditions with the multisensory exhibition 'The Afterlife of the Ancient Egyptians.' The description of the basic historical and geographical context was accompanied by the soundscape of the river's waves that the guides, a blind student and the curator, created in the first exhibition room. They introduced the Nile and its significance for the development of civilisation. They explained the importance and techniques of embalming corpses and pointed out the research on mummies, which provides a lot of information about the way of life of the ancient Egyptians. The participants learnt about their diet by type and taste, felt wheat grains, barley grains and lentils, and tasted figs and dates. Ethnologist Tina Palaić, author of the programme for ensuring accessibility of cultural heritage to vulnerable groups, tried to depict the smell of a mummified body that is around 2,500 years old. On her own initiative, she found a herbal cream with as similar a smell as possible and offered it to visitors. Many believed that an embalmed body could not smell pleasant, but this experience changed their assumptions. The participants learnt about the eternal home of the ancient Egyptians through copies of granite and wooden sarcophagi. The latter was in the form of a wrapped human body. In this way, they also learnt about the positions of the embalmed bodies, which changed over time, and illustrated them with their own bodies. The rite of embalming and the belief in life after death were also known from copies of amulets and other accessories that embalmers placed between the bandages of the mummies and attached to the bodies in the graves of the dead. Their function was to help the deceased on their way to the eternal land (Palaić and Kotnik 2015, 81–82). Tina Palaić, the author and one of the exhibition guides, explained that in creating this multi-sensory guide, she collaborated with a blind student to create the multisensory guide, whose insights and suggestions greatly helped her understand what the museum experience means for people with visual impairments. She decided to ap-

peal to all of the visitors' senses when creating the guide. At the same time, she was lucky enough to go to the museum's conservators when the casket containing the mummy was taken out of the lab where they were conducting research. One of the conservators allowed her to smell the mummy to remember the properties of the smell. She noticed a fresh herbal smell with a distinct menthol smell on the mummy and then went to the pharmacy to find a cream with the most similar smell. There was only one cream, the one for veins with a similar smell. She then decided to include the smell in the tour because she found it valuable and because she wanted to share this multi-sensory experience with museum visitors. Visitors – both blind and visually impaired visitors and everyone else – were excited about the opportunity to experience the smell of a mummy, because it's something you do not experience every day. Many expected the smell of decay, or at least a not-so-fresh odour. Some approached the cream container hesitantly because they did not know what to expect; the author had not told them beforehand that the scent would be fresh. This experience led to many questions about embalming, which was also the author's aim – to stimulate the visitors' interest and imagination through the smell. The smell was not superfluous for any of the visitors; no one rejected it. It was different when she offered dried fruit. In this case, there were also some visitors who did not like it, and one visitor said she was 'allergic' to it. The aim of this tour was to stimulate all the senses and also to activate the body (by trying out the postures in which the dead were mummified). The fact that they could also smell something was definitely a surprise for the visitors – something new and exciting (information from curator Tina Palaić, Slovenian Ethnographic Museum, 11. 4. 2022 and 25. 5. 2022).

In the following years, it seemed that the use of scents would become commonplace in Slovenian museums, as some museums used scents to illustrate phenomena from the past and, in particular, to interpret food culture. Unfortunately, this olfactory renaissance was short-lived. The review of the use of smells in museums showed that the inclusion of smells is not part of a planned strategy, but rather a matter of subjective preference or taste on the part of museum professionals. This fact is not so bad, because there is now much more theoretical and strategic information about olfactory museology, which makes it necessary to think about its use.

The group of curators invited to this study summarised the observations about smell in museums in a general conclusion: 'The original smell of the museum objects is usually no longer perceptible. It is perceptible when they arrive at the museum, but then the secondary smell appears, namely the smell of the conservation and restoration preparations and the smell of storage rooms. If these rooms are not air-conditioned, the objects get the smell of deposited dust and unventilated rooms. In the depot, most objects take on the same odour, which does not differ significantly in terms of the materials or the use of the objects. Each object can be connected to an associative smell, but this can differ from person to person. For instance, metal objects may conjure up different associations for different people, such as the smell of rust, a factory, or a workshop. This smell depends on personal experience. Some people may associate smoking items with the smell of cigarette smoke, while others associate smoking with the smell of pipe smoke. They associate perfume packages with different fragrances, and so on. We have a specific memory for the smell of each group of museum objects.' (Information from curators, Majda Pungerčar, Alenka Stražišar Lamovšek, Petra Stipančić, Marjeta Bregar, Lavra Fabjan, Katarina Dajčman and Matej Rifelj from Museum of Dolenjska, 24 and 25. 11. 2022).

These observations summarize well the nature of museum smells, which can be tangible when the objects still contain their own smell despite the conservation and restoration interventions, or intangible when memories, legends, and oral and written testimonies are associated with them. Some Slovenian museum professionals realized that every object can be connected to a memory-based scent when they started thinking along these lines. This realization could be the starting point for more thoughtful and strategic integration of smells into museum exhibits and visitor engagement, because it would more comprehensively highlight this largely underappreciated component of intangible heritage.

Conclusion

The study of smells in Slovenian museums has demonstrated the various ways in which smell is used by museum professionals. The most obvious is, of course, the strict display of olfactory objects, but this is often done in a way that does not enrich or engage the visitor's experience in the muse-

um. In addition, museums today use scented indoor and outdoor spaces to represent historical eras. While written descriptions of scents may seem unconventional, personalised explanations and informative short didactic films are more commonly used. Some museum shops offer scented souvenirs, although these items often have little or no relation to the actual exhibitions. The predominant method of presenting cultural heritage in traditional museums is still to show embellished representations of the past, 'clean' workshops, simple peasant dwellings, hospitals (such as partisan hospitals) and the like. Undoubtedly, the inclusion of odours from the past, such as damp and musty dwellings or decaying hides in tanneries, would deepen the heritological approach and bring it in line with modern museology.

Bibliography

Aspria, Marcello. 2009. *Cosmologies, Structuralism, and the Sociology of Smell*. Access: https://scentedpages.com/pdf/sociology.pdf (9 January 2024).

Bembibre Jacobo, Cecilia. 2020. *Smell of Heritage*. Doctor of Philosophy thesis. London: University College London.

Bembibre, Cecilia, and Matija Strlič. 2017. Smell of heritage: a framework for the identification, analysis and archival of historic odours. *Heritage Science* 5(2).

Bembibre, Cecilia, and Matija Strlič. 2022. From Smelly Buildings to the Scented Past: An Overview of Olfactory Heritage. *Frontiers in Psychology* (May): 132–138.

Bradley, Mark, ed. 2015. *Smell and the ancient senses*. London, New York: Routledge.

Classen, Constance, David Howes, and Anthony Synnott. 1994. *Aroma: The cultural history of smell.* London, New York: Routlege.

Corbin, Alain. 1986. *The foul and the fragrant: Odor and the French Social Imagination.* S. l.: Berg Publishers.

Debeljak, Biserka. 2006. *Muzej organov za notranje zadeve. Katalog in zapiski o zgodovini muzeja, muzejskih predmetih in ljudeh, ki so ga ustvarjali.* Ljubljana: Ministrstvo za notranje zadeve Republike Slovenije.

Digonnet, Rémi. 2018. The Linguistic Expression of Smells: From Lack to Abundance?, In *Sensory Perceptions in Language, Embodiment and Epistemology*, eds. Annalisa Baicchi, Rémi Digonnet and Jodi L. Sandford, 177–191. London: Springer.

Drobnick, Jim. 2014. The Museum as Smellscape. In *The Multisensory Museum: Cross-Disciplinary Perspectives on Touch, Sound, Smell, Memory, and Space*, eds. Nina Levent and Alvaro Pascual-Leone, 177–196. Lanham: Rowman & Littlefield.

Drobnick, Jim, ed. 2006. *The Smell Culture Reader*. Oxford: Berg.

Howes, David. 2015. Introduction to Sensory Museology. *The Senses and Society* 9(3): 259–267.

Howes, David, and Constance Classen. 1991. Sounding Sensory Profiles. In *The Varieties of sensory experience: A Sourcebook in the Anthropology of the Senses*, ed. David Howes, 257–288. Toronto, Buffallo, London: University of Toronto Press.

Hultén, Bertil, Niklas Broweus, and Marcus van Dijk. 2009. *Sensory Marketing*. London: Palgrave Macmillan.

Jellinek, Paul. 1951. *Die psychologischen Grundlagen der Parfümerie. Untersuchungen über die Wirkungen von Gerüchen auf das Gefühlsleben*. Heidelberg: Dr Alfred Hiithig.

Knez, Darko. 2024. *Vonj po tobaku: pribor za kajenje iz zbirke Narodnega muzeja Slovenije = The scent of tobacco: smoking paraphernalia at the National Museum of Slovenia*. Ljubljana: Narodni muzej Slovenije.

Kraševec, Ida, Eva Menart, Matija Strlič, and Irena Kralj Cigič. 2021. Validation of passive samplers for monitoring of acetic and formic acid in museum environments. *Heritage Science* 9(19).

Le Breton, David. 2017. *Sensing the World: An Anthropology of the Senses*. London, New York: Bloomsbury Academic.

Leemans, Inger, William Tullet, Cecilia Bembibre, and Lizzie Marx. 2022. Whiffstory. Using Multidisciplinary Methods to Represent the Olfactory Past. *American Historical Review* (June): 849–879.

Levent, Nina, and Alvaro Pascual-Leone, eds. 2014. *The Multisensory Museum: Cross-Disciplinary Perspectives on Touch, Sound, Smell, Memory, and Space*. Lanham: Rowman & Littlefield.

Lévi-Strauss, Claude. 1963. *Structural Anthropology*. New York: Basic Books.

Lévi-Strauss, Claude. 1969. *The Raw and the Cooked. Introduction to a Science of Mythology: I*. New York, Evanstone: Harper & Row Publishers.

Loi no. 2021-85 du 29 janvier 2021 visant à définir et protéger le patrimoine sensoriel des campagnes françaises (1). *Journal officiel électronique authentifié* (0026). Access: https://www.legifrance.gouv.fr/download/pdf?id=L870nfkgJzg6S6kBL-zdjyu1fmt64dDetDQxhvJZNMc= (9 January 2024).

Majid, Asifa. 2015. Cultural factors shape olfactory language. *Trends in Cognitive Sciences* 19(11): 629–630.

Majid, Asifa. 2021. Human olfaction at the intersection of language, culture, and biology. *Trends in Cognitive Sciences* 25(2): 111–123.

Majid, Asifa, and Stephen C. Levinson. 2011. The senses in language and culture. *Senses and Society* 6(1): 5–18.

Malinowski, Bronislaw. 1929. *The Sexual Life of Savages in North-Western Melanesia. An Ethnographic Account of Courtship, Marriage, and Family Life among the Natives of the Trobriand Islands, British New Guinea.* London: George Routledge & Sons.

Maroević, Ivo. 2020. *Uvod v muzeologijo*. Ljubljana: Slovensko muzejsko društvo.

Nieuwhof, Anne. 2017. *Olfactory Experiences in Museums of Modern and Contemporary Art. Smell as a New Curatorial Strategy*. Research Master Arts & Culture. Leiden: University of Leiden.

Palaić, Tina, and Barbara Kotnik. 2015. Veččutna vodstva. In *Elaborat o dostopnosti in zagotavljanju tehničnih pogojev za vzpostavitev dostopnosti do kulturne dediščine ranljivim skupinam*, eds. Tina Palaić and Urša Valič, *78–84*. Ljubljana: Slovenski etnografski muzej.

Ramšak, Mojca. 2023. Smernice za vrednotenje vohalne pomembnosti artefaktov za muzeje = Guidance on Evaluating the Olfactory Significance of Artefacts for Museums. *Argo* 66(1): 60–73.

Roženbergar Šega, Tanja (2011): Ne mečte piskrov stran. In *Kulturna dediščina industrijskih panog: 11. vzporednice med slovensko in hrvaško etnologijo = Industrijska kulturna baština: 11. hrvatsko-slovenske etnološke paralele*, eds. Alenka Černelič Krošelj, Željka Jelavić, and Helena Rožman, 168–177. Ljubljana: Slovensko etnološko društvo.

Reinarz, Jonathan. 2014. *Past Scents: Historical Perspectives on Smell.* Urbana, Chicago, Springfield: University of Illinois Press.

Spence, Charles. 2020. Scenting the Anosmic Cube: On the Use of Ambient Scent in the Context of the Art Gallery or Museum. *i-Perception* 11(6): 1–26.

Stevenson, Richard J. 2014. The Forgotten Sense. Using Olfaction in a Museum Context: A Neuroscience Perspective In *The Multisensory Museum: Cross-Disciplinary Perspectives on Touch, Sound, Smell, Memory, and Space*, eds. Nina Levent and Alvaro Pascual-Leone, 151–165. Lanham: Rowman & Littlefield.

The Burra Charter. 1999. *The Burra Charter: The Australia ICOMOS charter for places of cultural significance, Australia ICOMOS Inc, International Council of Monuments and Sites*. Access: https://australia.icomos.org/wp-content/uploads/BURRA_CHARTER.pdf (9 January 2024).

Tullett, William. 2016. Grease and Sweat: Race and Smell in Eighteenth-Century English Culture. *Cultural and Social History* 13(3): 307–322.

Tullett, William, Inger Leemans, Hsuan Hsu, Stephanie Weismann, Cecilia Bembibre, Melanie A. Kiechle, Duane Jethro, Anna Chen, Xuelei Huang, Jorge Otero-Pailos, and Mark Bradley. 2022. Smell, History, and Heritage: A Conversation. *The American Historical Review* (127): 261–309.

UNESCO. 2003. *Convention for the Safeguarding of the Intangible Cultural Heritage.* Access: https://ich.unesco.org/en/convention (9 January 2024).

UNESCO. 2018a. *Les savoir-faire liés au parfum en Pays de Grasse: La culture de la plante à parfum, la connaissance des matières premières et leur transformation, l'art de composer le parfum.* Access: https://ich.unesco.org/fr/RL/les-savoir-faire-lis-au-parfum-en-pays-de-grasse-la-culture-de-la-plante-parfum-la-connaissance-des-matires-premires-naturelles-et-leur-transformation-l-art-de-composer-le-parfum-01207 (9 January 2024).

UNESCO. 2018b. *Decision of the Intergovernmental Committee: 13.COM 10.B.14.* Access: https://ich.unesco.org/en/decisions/13.COM/10.B.14 (9 January 2024).

Verbeek, Caro. 2016. Presenting volatile heritage: two case studies on olfactory reconstructions in the museum. *Future Anterior: Journal of Historic Preservation, History, Theory, and Criticism* 13(2): 33–42.

Vergo, Peter, ed. 1989. *The New Museology*. London: Reaktion Books.

Vošnjak, Nina. 2023. Od rafinerije do galerije – veččutno vodstvo po zgodovini Cukrarne. *Argo* 66(1): 42–49.

Sources

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Čebelarski muzej Radovljica = Museum of Apiculture Radovljica (Tita Porenta).

Dolenski muzej Novo mesto = Museum of Dolenjska (Majda Pungerčar, Alenka Stražišar Lamovšek, Petra Stipančić, Marjeta Bregar, Matej Rifelj, Lavra Fabjan, Katarina Dajčman).

Gorenjski muzej = Museum of Gorenjska (Alenka Pipan Mubi, Veronika Pflaum, Tatjana Dolžan Eržen, Monika Rogelj, Marjana Žibert).

Goriški muzej = The Regional Museum Goriški muzej (Inga Miklavčič Brezigar).
Kartuzija Pleterje = The Charterhouse of Pleterje (p. Frančišek M. Fodor, prior, Jože Simončič).
Kobariški muzej = The Kobarid Museum (Jaka Fili).
Koroški pokrajinski muzej = Carinthian Regional Museum (Karla Oder, Brigita Rajšter).
Kulturni dom Krško, muzejska enota Grad Rajhenburg = Krško Cultural Centre, Rajhenburg Castle (Helena Rožman).
Lavičkova farmacevtska zbirka = Lavička Pharmaceutical Collection; Lek farmacevtska družba d. d. = Lek Pharmaceuticals d. d. (Katarina Klemenc).
Lekarniški in alkimistični muzej Radovljica = Pharmacy and Alchemy museum Radovljica (Anika Plešec).
Mestni muzej Idrija = City Museum Idrija (Mirjam Gnezda Bogataj).
Mestni muzej Litija = City Museum Litija (Tina Šuštaršič).
Mestni muzej Ljubljana = City Museum Ljubljana (Ema Marinčič).
Minoritski samostan Olimje = Minorite Monastery of Olimje (p. Ernst Benko).
Muzej krščanstva na Slovenskem = Slovenian Museum of Cristianity (Nataša Polajnar Frelih, Marko Okorn).
Muzej na prostem Rogatec = Rogatec Open-Air Museum (Nives Brezovnik).
Muzej novejše zgodovine Celje = Museum of Recent History Celje (Marija Počivavšek, Tone Kregar).
Muzej Ribnica = Museum of Ribnica (Marina Gradišnik).
Muzej slovenske policije = Museum of Slovenian Police (Darinka Kolar Osvald).
Muzej Velenje = Museum Velenje (Tanja Verboten).
Muzej za arhitekturo in oblikovanje = The Museum of Architecture and Design (Špela Šubic).
Park vojaške zgodovine Pivka = Park of Military History Pivka (Boštjan Kurent).
Pokrajinski muzej Celje = The Celje Regional Museum (Barbara Trnovec, Nataša Žmaher, Gabrijela Kovačič).
Pokrajinski muzej Ptuj Ormož = Ptuj Ormož Regional Museum (Mojca Vomer Gojkovič, Aleksander Lorenčič).
Pomurski muzej Murska Sobota = Pomurje Museum Murska Sobota (Jelka Pšajd).
Rokodelski center Ribnica = Ribnica Handicraft Center (Vasja Zidar).
Slovenski etnografski muzej = The Slovene Ethnographic Museum (Tjaša Zidarič, Ana Motnikar, Tina Palaić, Tanja Roženbergar, Nena Židov).
Tehniški muzej Bistra = Technical Museum Bistra (Irena Marušič, Martina Orehovec).
Tržiški muzej = Tržič Museum (Bojan Knific, Jana Babšek).