Common Heritage; Common Property; Common Concerns

Recommedations, Gerenral Requirments, Hygienic and Technical Principles for Re-opening of Museums during Coronavirous Pandemic

1st Version

29 May 2020

ICOM IRAN CONSERVATION GROUP
TEHRAN-IRAN

In the Name of God

Credentials

Project Title: **Preparing "Recommendations, General Requirements, and Hygiene and Technical Principles for the Re-opening of the Museums during Coronavirus Pandemic**".

Date: 29 May 2020.

Project Supervisor: **Rasool Vatandoust (PhD)**, Chair, IRAN ICOM Conservation Commission

Project Administrator: **Manijeh Hadian Dehkordi (PhD)**, Member of the Scientific Board, Research Institute for Cultural Heritage and Tourism (RICHT); and Head of Education and Preventive Conservation Working Group;

Project Contributors:

Parisa Abdollahi, Freelance researcher, senior conservation/restoration expert, and Head of Conservation History and Theoretical Principles Working Group;

Mitra Etezadi, Freelance researcher, senior conservation/restoration expert, and member of IRAN-ICOM-Conservation Commission;

Khosrow Farri, Freelance researcher, senior conservation/restoration expert, and Head of Conservation of Stone and Rock Arts Working Group;

Behnood Goharbin, Freelance researcher, Senior Conservation/restoration expert, and Assistant to the Head of Architectural Decorations Working Group;

Yaser Hamzavi (PhD), Member of the Scientific Board, Tabriz Art University, and Head of Architectural Decorations Working Group;

Behshad Hosseini (PhD), Conservation/ Restoration Senior Expert, Isfahan General Directorate for Cultural Heritage, Handicrafts and Tourism; and Assistant to the Head, Paintings Conservation Working Group;

Fariba Majidi, Freelance researcher, senior conservation/restoration expert, and Head of Conservation of Archaeological Finds Working Group;

Hamid Malekian, Freelance researcher, senior conservation/restoration expert, and Head of Conservation of Manuscripts and Archives Working Group;

Shokoofeh Mesbahi, senior conservation/restoration expert**,** Research Centre for Conservation of Cultural Relics; and Head of Conservation of Carpets and Textiles Working Group;

Marjan Mianabi Shushtari Conservation Expert, Khuzistan Cultural Heritage, Handicrafts and Tourism General Directorate and Assistant to the Education and Preventive Conservation Working Group;

Mansureh Nezaratizadeh, Senior Conservation/ Restoration expert, and Head of Conservation of Metals and Enamel Working Group;

Fatollah Niazi, senior conservation/restoration expert**,** Research Centre for Conservation of Cultural Relics, Head of Conservation of Modern Materials and Contemporary Arts.

Contents

1. Foreword 1
2. Recommendations and General Requirements for the Museums during Coronavirus pandemic 4
3. Visitors' Protocols 10
4. Museums' Guides Protocols 12
5. Conservators/Restorers Protocols 14
6. Curators' Protocols 17
7. Cleaning and Disinfection Protocols 20
8. Annexes 24
9. Guiding Signs 34
10. Infographic posters 39

c

Foreword

After very sudden and unexpected arrival of the Coronavirus, or Covid-19, in the world the fundamental relation between the historical/cultural buildings, sites and museums with the people faced, as for many other global activities, abrupt discontinuance, changes, and re-considerations. Museums were closed worldwide and in Iran, cultural heritage' visitors or audiences were forced to stay-at-home, and many professions and industries, including tourism, confronted with unprecedented crisis. As part of the solution the tools of the virtual world entered more convincingly this domain too, and efforts were made so that virtual tours, remote dialogues, discussions, and communications, and various publications, could fill this gap, even if nominally.

But the truth is that the museums and other historical/cultural paces are directly dependent on the people, astonishingly losing their concept and place in the society without them. Museums are the source of methodical exchanges and places of science and knowledge. People and cultural properties are two faces of the same coin, each losing its attribute without the other. Museums, in particular, are full-fledged and exceptional education/research centres which everybody, chiefly the scientific communities, interact with them. Now, with the situation in hand, that is Coronavirus crisis, what solution the museums and other cultural places could envisage in order for them to be able to conduct their duties satisfactorily?

Coronavirus pandemic and other similar catastrophes are among the crisis producing agents for cultural properties too. Therefore, during this current disaster, it is necessary to address two subjects simultaneously, the health and well-being of the people as well as the well-being and preservation of the museum collections, historical buildings and sites. The world of cultural heritage has just begun to comprehend that apart from those routine deterioration agents of physical forces (earthquake, impact, breakage, vibrations, improper handling, etc.), fire, water, thieves and vandals, pests and plants, light and ultraviolet, pollutants, inappropriate humidity

and temperature, and dissociation, a specific place should also be allocated for pandemics such as Corona in risk management of cultural heritage in museums, historic buildings and sites. The current deadly consequence of this pandemic clearly shows that in planning long-term programs for both the well-being of our fellow citizens and care of cultural properties we have no other way than paying special attention to these kinds of natural disasters too. This virus is not only dangerous on its own and thus must be contained but its companion with other agents of destruction in museums and other cultural places is another predicament. It is necessary that all destroying aspects of this damaging factor be put into multifaceted studies and consequently, as of other damaging and destructive agents, and determine the remedial methods before, during, and after its attack.

In order for these cultural institutions to re-assign their rightful position, they should get in touch with the people and re-start their activities. Museums and historic places are now being re-opened. To cope with the new reality various responsible institutions and organisations have produced protocols to facilitate the process. We must all be thankful for these efforts. The ICOM Iran Conservation Commission has, as its duty and as well as upon the requests and supports of the Research Institute for Cultural Heritage and Tourism and ICOM Iran, and with close cooperation of a number of its Working Groups supervisors and some members of the Commission[1], prepared and produced the current guidelines as the "Recommendations, General

[1] The present document is prepared by IRAN ICOM Conservation Commission. Thanks are due to the following heads of the Working Groups and conservation experts, both as commission members and as scientific associates of various Iranian educational and research institutions active in conservation and promotion of cultural heritage who contributed to its preparation: Manijeh Hadian Dehkordi (PhD), Scientific Board member of the Research Institute for Cultural Heritage and Tourism (RICHTO) and the Head of Education and Preventive Conservation Working Group, as the supervisor of the project; Parisa Abdollahi (PhD), the Head of the Conservation and Restoration History Theoretical Principles Working Group; Mitra Etezadi, senior conservation and restoration expert and member of the commission; Shokoofeh Mesbahi, the Head of Conservation of Carpets and Textiles Working Group; Fariba Majidi, the Head of Conservation of Archaeological Finds Working Group; Mansureh Nezaratizadeh, the Head Conservation of Metals and Enamel Working Group; Marjan Mianabi Shushtari, Conservation Expert, Khuzistan Cultural Heritage, Handicrafts and Tourism General Directorate and Assistant to the Education and Preventive Conservation Working Group; Hamid Malekian, the Head of Conservation of Manuscripts and Archives; Yaser Hamzavi (PhD), the Head of Conservation of Architectural Decorations Working Group and member of scientific board, Tabriz Art University; Khosrow Farri, the Head of Conservation of Stone and Rock Arts; Fatollah Niazi, the Head of Conservation of Modern Materials and Contemporary Arts; Behnood Goharbin, senior conservation and restoration expert and Assistant to thef Conservation of Modern Materials and Contemporary Arts Head of Conservation of Modern Materials and Contemporary Arts Secretary to the Conservation of Architectural Decorations Working Group; and Behshad Hosseini (PhD), Senior Conservation Expert, Isfahan Cultural Heritage, Handicrafts and Tourism General Directorate and Secretary to the Conservation of Paintings Working Group. I am also grateful Shabnam Honarbakhsh, Collection coordinator, UBC Museum of Anthropology for her cooperation.

Requirements and Hygiene and technical Principles for Re-opening of the Museums during Coronavirus Pandemic". As can be observed, further care to protect and preserve cultural properties, general requirements, and hygiene and technical principles have all been concurrently considered in this document so that together with other relevant national and international protocols we may be able to note both faces of the same coin and pass this pandemonium safely.

There is no doubt that this would be an ongoing task, and as more fresh evidences are found about this disease more up-to-date versions should be prepared and released. Corona virus not only directly threatens the safety of humans, *that is to say* the museums and other cultural places' audiences, but also indirectly exposes cultural properties to additional risks. This is a crisis which should be managed similar to other calamities. Thus it should be emphasized that it is not merely this "Recommendations, General Requirements and Hygiene and Technical Principles" and other similar protocols that would help the salvation of both peoples and cultural properties, but it is the strict, multi-faceted, and round-the-clock supervision of their implementation that would doubly insure their success.

Finally, as a member of the Iran ICOM family, Iran ICOM Conservation Commission would extend the hands of cooperation toward everyone so that in this way it may become faster to reach its goals which are manifested in the Commission's slogan, *that is*: "Common Heritage, Common Property, and Common Concern".

Rasool Vatandoust
Chair, Conservation Group of ICOM -IRAN

Recommendations and General Requirements of museums during Coronavirus Pandemic

Several protocols or guidelines have already been issued by various institutions such as the World Health Organisation, museums, and local and international centres in order to meet the growing concerns and fears arising from re-opening of museums during coronavirus pandemic. Collectively they all refer to observing some general hygienic principles for the health of individuals and to some extent cultural objects. However since there are still unknown and ambiguous points regarding the virus and its repercussions, and also due to extreme disparities between the governing conditions in various communities, as well as the existing facilities in each museum, the re-opening may need specific considerations. Following recommendations and general requirements are to assist the planning and policies of the re-opening of the museums. Therefore some guidelines could be adjusted to the needs of the museums providing that basic principles are respected.

1- Consider two weeks of planning and preparation before opening the museums to the visitors.

2- Supplementary sections such as café, restaurant, temporary exhibitions, and etc. could remain closed until further notice.

3- Asses the apparent conservation conditions of the objects in different sections of the museum (exhibition halls and storage) after quarantine respecting hygienic procedures.

4- Performance review, HVAC and filtering maintenance should be considered prior to re-opening.

5- Be ensured of proper functioning of the closed circuit camera system, showcases safety, and overall security of the museums and other cultural institutions during

this time as due to physical distancing and well-being of the people there will be less attendance by museum guides and personnel.

6- Make sure that the fire protection and alarm systems are in working condition when using flammable alcohol - based disinfectants.

7- In case of the emission of gaseous pollutants from the materials used in manufacturing of exhibiting showcases (Such as MDF and other synthetic materials) and the probability of concentration increase of these gases within the cases during quarantine period, regular opening and air circulation of the display cases will be necessary.

8- Follow guidelines in section 5 of this document to clean and disinfect all presumed contaminated parts and surfaces prior to the re-opening. Refrain strictly from using any disinfectants not already proved to be applicable to the museums.

9- Having considered the present situation, the importance of the collections safety and security and provision of new visiting environment, planning of innovative displaying scenarios may be necessary. It is thus recommended that these new scenarios and visiting paths be organised with limited but more attractive and less exhibited materials so that the visiting time is shortened. In this way long stays in one place are prevented and at the same time an appealing and unforgettable visit is provided. To limit the number of furniture such as chairs and benches could help with decreasing the visiting time spent at any given spot.

10- Do not display exposed and vulnerable objects with less strength toward humidity and temperature fluctuations as well as contaminations caused by disinfectants. Display of objects inside showcases is to be considered the priority.

11- To better manage the visitors and thus insuring their safety and security as well as the well-being of the staff it is recommended that the visits should solely be allowed by purchasing online tickets and based on timely planned schedules (Limited number of visitors, specified visiting time, corresponding with the size of the galleries). It is further recommended that those with free entry also register online and receive their entry tickets and visit schedules.

12- Provide necessary visiting guidelines at the entries or/and through the web requiring visitors to wear face masks and gloves and avoid bringing with them unnecessary materials which may contaminate the museum.

13-As disinfectants may be harmful to the museum environment and works of art the primary goal would be the safety of both individuals and objects and prevent the contamination from entering the museum. It is thus recommended that Covid-19 screening checkpoints be set up adjacent to the museums' entrances to monitor visitors and staff's temperature and blood oxygen content, respecting strict hygienic codes, before they enter museum spaces.

14- Covid-19 screening checkpoints should provide face masks and gloves as well as sanitizers to visitors and staff. Emergency contact list (museum emergency officer, ambulance and fire department) should be available and visible to the staff and visitors.

15- Digital access to the collections and guiding methods should be considered as a preventive measure.

16- Although until April 2020 no recommendation has been found about wearing shoe covers as measure of protection in any protocols issued by either the World Health Organisation or infectious diseases control committees and consulting institutions in western countries but shoes could be considered as one of the means of coronavirus transmission.

16.1- Normally broad floor surfaces of the galleries and consequently use of large amount of alcohol or water-based disinfectants may affect the interior environment in terms of humidity content, chemical pollution, or risk of fire (in case of alcohol-based materials) thus damaging the objects too. Therefore use of less hazardous preventive measures (Disuse of alcohol-based disinfectants) such as plastic covers for shoes or sterilization of their soles before entering the museums is recommended so that contamination of the surfaces or the environment is prevented.

16.2- Antiformin or bleach is occasionally used in some contaminated/polluted places such as entrances, corridors and stairs. Antiformin or Sodium Hypochlorite produces chlorine gas which disinfects materials. However it is to be reminded that its extensive use and evaporation of chlorine in internal spaces coupled with air movement may not only affect the safety of people but could also increase the corrosive potentials of the environment, consequently damaging the objects. Further considerations should be given to the possibility of shoe soles being

contaminated with this material and by walking on the moquette flooring may cause the corrosion of museum surfaces.

17- For more information please see the attached appendixes as well as visit http://www.richt.ir/Portal/Home

18- The responsibility of supervising the implementation of these guidelines should be given to the head of the museum conservation department

Preventative conservation/preservation measures in Museums (Galleries and Storage) during Coronavirus Pandemic

Control stages	Preventive measures
Avoid: Avoiding any source of contamination to enter the museum space	✓ Do not allow anyone with cold or flu-like symptoms such as a cough, fever, sneezing, sore throat, loss of sense of smell/taste, to the Museum ✓ Maintain health and safety protocols (face mask, gloves, and personal belongings such as mobile sets) in galleries and storage areas. ✓ Sanitizing shoes (when disinfectant solution doesn't damage Museum flooring cover) or wearing disposable shoe covers. ✓ Do not allow unnecessary belongings into the Museum. ✓ Limit gallery paths and visitors flow.
Block: Applying protective barriers to avoid the risk of contamination	✓ Not touching any surface while inside the Museum ✓ Display of the objects inside the showcases ✓ Do not display exposed/fragile objects – Remove fragile objects from open display ✓ Limit the number of objects on display ✓ Management of the paths and duration of the visits. ✓ Do not allow large group tours and schedule visits for specified number of people. ✓ Limit seating and resting areas throughout the museum ✓ Air conditioning maintenance and filter replacement ✓ Use proper rolling carts to transfer objects with minimum touch and contamination. ✓ Quarantine objects in case of contamination
Monitor	✓ Maintain regular environmental monitoring (temperature and relative humidity)

Assessing objects condition and collections care	✓ Air exchange between museum interior and outside environment. ✓ Daily visual examination of objects on display ✓ Physical examination of furniture and display cases (surface paint, fixtures and etc.) when using disinfectant solutions ✓ Control visitor's flow by implementing safety standards, physical distancing, duration and paths of the visits.
Respond Implementing measures to control contamination risk	✓ Clean and sanitize high- touch surfaces and floors using recommended solutions. ✓ Air circulation by the way of either mechanical systems (Increase of fresh air volume into air conditioner), natural circulation (Proper doors and windows), or movable fans in case of the visitors excess. ✓ Micro-climate control through air conditioning. ✓ Maintain an optimal humidity with silica gel inside display cases ✓ Shorten work hour for the Museum guides with rotating shifts during open hours
Recover Emergency operations in case of crisis	✓ Close the exhibit and transfer the objects at risk to a proper place of care. ✓ Perform require conservation/preservation measures. ✓ Coordinate the transfer of patients to quarantine place or medical facilities. ✓ In case of need contact the person in charge of crisis management, emergency unit, and fire department.

1

Visitors' health and safety guidelines

For the safety and health of all and prevention of possible damage to the Museum collection observing following visiting guidelines are mandatory:

Attention

- All admission will now be based on a pre-paid, timed entry tickets. To purchase your ticket, please go to Museum website.

- Visitors whom are eligible for free entry must reserve an on-line ticket in advance and show a membership card or ID at point of entry.

- Reading visitors guidelines prior obtaining your entry ticket is mandatory.

- Please do not either purchase your ticket or come to the Museum, if you or anyone in your household feels sick or shows any flu like symptoms such as fever, cough, sore throat and headaches.

- Please do not bring/carry with you unnecessary belongings which may contaminate the Museum environment.

- Visitors must use personal protective equipment (face mask and gloves) and use hand sanitizer before entering the Museum.

- Visitors must sanitize their personal gadgets such as mobile sets or cameras before enter the Museum.
- Children of 6 years old and under are not allowed inside Museum for their safety until further notice.

- Those contacting the Museum for research purposes must also follow the guidelines.

Important information for your visit:

1. Have your digital ticket ready for scanning, and then proceed to screening checkpoint for temperature and blood oxygen content measurement before entering the museum.

2. Wear a shoe cover available at the Museum entry point.

3. Use personal protective face mask and gloves for your visit.

4. Maintain a 2-metre safe distance from the others during your visit.

5. Pay attention to the guiding signs.

6. Allow a safe distance (minimum 50 cm) from showcases.

7. Do not touch any surfaces.

8. Leave the galleries immediately and go to the exit and proceed to Covid-19 screening checkpoint if you feel unwell, tired or weak.

9. Shoe covers, gloves and face masks must be disposed into labelled trash bin at the end of your visit outside the galleries.

10. Fill out the service evaluation / visitor experience survey to help us improve our services during Covid-19 and provide details about your concerns and comments.

2

Museum Staff and Guides Health and Safety Guidelines during Coronavirus Pandemic

For the safety and health of the staff and prevention of possible damage to the Museum collection observing following guidelines by the staff are mandatory:

Attention

- All staff must follow Covid-19 screening requirement before start of their daily work.

- Noting that museum guides would normally stay for long hours in the galleries and occasionally accompany the visitors too they should strictly follow the Health and Safety guidelines for their own safety as well as visitors.

- All personal gadgets such mobile sets must be sanitized before entering the Museum galleries.

- It is required for the staff to take a short break during their shift, particularly when there are no visitors, and go outside for fresh air.

Stages to be observed by Museum Guides

1. Wear shoe cover before entering the gallery**.**
2. Keep an extra pair of shoes suitable for use in galleries somewhere appropriate.
3. Sanitize your personal protective gear such masks and gloves at the entrance.
4. Use face shield when guiding the visitors.
5. Assist and direct visitors through visiting paths.
6. Remind visitors to maintain required physical distancing and not touching any surfaces.
7. Consult with your conservator on site, if you need to use a fan or open windows for air circulation purpose.
8. Leave the galleries immediately and go to the exit and proceed to Covid-19 screening checkpoint if you feel unwell, tired or weak.
9. Secure all windows after air circulation and at the end of a day before leaving the galleries.

3

Health and Safety Guidelines for Museum Conservators/Restorers during Coronavirus Pandemic

For the safety and health of individuals and prevention of possible damage to the Museum collection observing following guidelines by conservators/restorers are mandatory:

Attention

- Have your body temperature checked at the screening checkpoint before entering the Museum.

- As air conditioning systems (central, wall-mound or standing) are key to controlling air quality inside the museums you should have them maintained regularly.

- Monitor the micro-climatic condition of the museum (Temperature and relative humidity) with data loggers or thermometers. Make sure of correct functioning of air conditioning system.

- As some museum pieces, specially exposed ones, such as paintings and textiles are susceptible to micro-climatic changes and contamination resulted from disinfectants, it might be necessary to move them to the storage or more suitable place before opening of the galleries providing that this is coordinated with curators and other responsible staff.

- Control the safety and security of showcases. Seal any possible crevices in joints. If you have susceptible materials such as paper, ivory, bones, or

leather, on display use buffering substances like silica gel inside showcases to reduce humidity fluctuations.

- To maintain air circulation within showcases and prevent gaseous pollutants concentration from increasing during quarantine period, open them occasionally for few minutes

- Although use of alcohol-based (70% Ethanol or Isopropyl alcohols) disinfectants as well as water and soap in museums environment is recommended but bearing in mind their possible adverse effects on the objects and interior furniture caution should be taken not to use them excessively (Treating of surfaces by these disinfectants should be limited based on the type of the material). This can be achieved by applying more strict procedures and management of visitors to lower the possibility of contamination. (For further information please consult Guidelines number 5).

- Until safe and secure situation is maintained use conservation treatments involving chemicals only on limited basis and with observing utmost health and safety procedures.

- For additional information regarding environmental monitoring please see the appendixes.

Stages to be observed for preservation and care of objects in Museum galleries

1. Wear shoe cover each time entering the gallery**.**

2. Keep an extra pair of shoes suitable for use in galleries somewhere appropriate.

3. Be insured of your face mask and gloves being uncontaminated before entering the gallery.

4. Be insured that your personal belongings are sanitized when you are going to the galleries.

5. Each day before visitors' arrival survey and monitor the condition of objects and showcases. It is recommended that some more susceptible materials such as paintings, paper, leather and metal artefacts be daily checked and documented more precisely so that possible changes could be traced.

6. Document any dubious case or changes due to either temperature/humidity fluctuations or use of disinfectants, and duly transfer them to the storage or a suitable place.

7. Environmental monitoring of temperature and relevant humidity should be done on daily basis.

8. Assess the air quality on daily basis and coordinate windows opening for air circulation with Museum staff if needed.

9. Supervise cleaning and sanitizing procedures (and materials used) before and after public hours.

10. Leave the Museum immediately and go to the exit and proceed to Covid-19 screening checkpoint if you feel unwell, tired or weak.

4

Health and Safety Guidelines for Museum curators/trustees during Coronavirus Pandemic

For the safety and health of individuals and prevention of possible damage to the Museum collection observing following guidelines by Museum curators/trustees are mandatory:

Attention

- Have your body temperature checked at the screening checkpoint before entering the Museum.

- As air conditioning systems (central, wall-mound or standing) are key to controlling air quality inside the museums you should have them maintained regularly.

- Monitor the micro-climatic condition of the museum (Temperature and relative humidity) with data loggers or thermometers. Make sure of correct functioning of air conditioning system.

- Make sure that objects and equipment in storage are in good condition after quarantine period.

- To maintain air circulation in fully closed spaces (Such as cupboards and boxes to keep artefacts) and prevent gaseous pollutants released from various materials during quarantine period from concentrating, open them for few minutes.

- No need for further disinfection of the interior surfaces of the storage area after quarantine period and cleanliness of the internal environment. In case of need normal cleaning would be sufficient.

- To keep the storage environment healthy and uncontaminated, all relevant researchers or other clients must also fully comply with health and safely guideless as stated below.

- Prepare required spaces in the storage area for transfer of some objects from the galleries. No need to say this to do this one should coordinate the procedure with person in charge of conservation and other relevant authorities.

- For additional information regarding environmental monitoring please see the appendixes.

Stages to be observed when using the storage area

1. Wear shoe cover each time entering the gallery**.**

2. Keep an extra pair of shoes suitable for use in storage somewhere appropriate.

3. Have hand sanitizers available for use.

4. Be insured of your face mask and gloves being uncontaminated before entering the storage.

5. Be insured that your personal belongings are sanitized when you are going to the storage.

6. In case of need for cleaning or disinfection of the surfaces or suspected of being contaminated proceed with Guidelines No. 5.

7. After handling and touching the objects and in case of not being sure of your hands being fully clean, quarantine the artefacts for two weeks.

8. When leaving the storage remove your shoe cover and dispose it in labelled trash bin.

5

Guidelines for Cleaning and Disinfection of the Surfaces during Coronavirus Pandemic

For the safety and health of individuals and prevention of possible damage to the Museum collection observing following guidelines for cleaning and disinfection of surfaces by relevant staff and supervised by the conservation are mandatory:

Attention

- Have your body temperature checked at the screening checkpoint before starting your daily works.

- Currently all guidelines related to the re-opening of the museums recommend using less hazardous chemicals such as 70% Alcohol and solution of water and soap for cleaning and disinfection of the surfaces.

- Given the high evaporation rate and inflammability of alcohol- based sanitizers as well as their possible adverse effects on some materials their use should be consulted with person in charge of conservation at the Museum.

- Water -based sanitizers such as water and soap solution are less hazardous to the human and collection than alcohol-based ones. However it should be noted this will be considered as a wet method and if used extensively in showcases or museum floors it may result in drastic humidity fluctuations

within the museum environment particularly during summer time, which in turn could affect susceptible objects. It is therefore recommended that the museum conservation be consulted and work itself be conducted under his/her guidance.

- Surface cleaning and sanitizing must be done by trained staff.

Stages to be observed when cleaning and disinfecting internal museum spaces (Storage and galleries)

1. Wear shoe cover and suitable clothing when entering museum internal spaces (Galleries and storage area).
2. Have extra pair of shoes ready to use kept in proper places inside your workplaces.
3. Use sanitized or new face mask and gloves when entering the galleries.
4. Make sure that your personal belongings are sanitized when you are going to the storage.

a) Disinfecting storage shelves

1. Remove all the objects of the shelf and put them somewhere safe, before sanitizing the surfaces with alcohol-based disinfectants.
2. For regular cleaning and removal of dust from surfaces use a soft brush or vacuum cleaner, and dry or damped cloth. If dusting is done without a

special vacuum cleaner, remove and collect dust carefully to avoid spreading it to surrounding areas.

3. All surfaces must be fully dried after wet cleaning.
4. Use extra caution when sanitizing surfaces nearby organic materials after initial cleaning. You may use alcohol base disinfectant with spray or a damp clean cloth.
5. For wet cleaning (soap and water), after dusting, first wipe down the area with wet cloth (water and soap solution) then rinse it with a clean wet cloth. Use a clean dry cloth to make sure the area is completely clean and dry. Use extra caution to avoid spreading of cleaning materials and moisture.

b) Disinfecting the showcases

1. Check the showcases conditions specifically the hinges and openings so that in case of need for their cleaning or disinfection no leakage of moisture or alcohol into them would occur.
2. Cleaning and disinfection with alcohol should be similar to section a) above with the difference that for dust cleaning using slightly damped cloth would be sufficient. Afterward alcohol-based disinfectant can be sprayed with caution and care.
3. Water and soap solution also can be use to clean and disinfect the showcases. After dusting, wipe down the area with wet cloth and completely dry the surface after rinsing.

c) Disinfecting the floors

1. Never use alcohol-based disinfectants for large surfaces particularly in exhibition and storage areas.

2. For floors it is better to use solution of water and soap but to control the amount of relative humidity, surfaces should be dried fully and quickly after cleaning.

d) Disinfecting other high touch surfaces

Disinfect keys, door knobs, etc. on short intervals with alcohol spray. After cleaning and sanitizing, everything should be washed and dried. Cleaning and disinfecting tools and materials should separately be sanitized, cleaned and dried.

Annexes

Table 1- Damages caused by relative humidity, temperature and pollutants and preventive measures[2]

Threat	Specifications	Damages	Frequent Causes	Preventive Measures
Relative Humidity	Incorrect humidity level (high or low) Rapid fluctuation in %RH	High humidity causes: - Mould growth - Corrosion Low humidity causes: Embrittlement Fluctuation causes: Splitting and flaking of paints and glue Blistering Deformation and warping (Specially in case organic materials such as leather, textiles and paper)	Climatic changes flooding & leaks internally and around the building Damp caused by visitors' clothing during rainy days Wet-cleaning of the floors Building re-decorations Rising damp Poor building insulation (temperature and/or humidity transmission) Poor ventilation Inappropriate setting of temperature	Regular monitoring of %RH Moving the collections to a proper place Improve air circulation Introduce visitors' cloakrooms or prevent visitors with wet clothing from entering Improve building insulations Attempt to impose RH control (by air conditioning, movable humidifiers/dehumidifiers

[2] http://www.meaco.com/preventa.htm

Temperature	Incorrect temperature (high or low) Rapid fluctuation in temperature	Heat causes: Increase in degradation Embrittlement Fluctuation causes: splitting Flaking warping	Climatic changes Poor building insulation Radiant heat from display lighting	Regular monitoring of temperature Improve insulation Mount lights externally to display cases Control temperature (by air-conditioning or use of heating/humidity control)
Pollutants	Polluting gases and aerosols, especially: Oxidizing and sulfides gases Dirt & dust	Deterioration of materials	Vehicles traffic Lack of air-filtration Poor doors/windows fitting Poor housekeeping Poor control of building maintenance/decorating works Inappropriate cleaning methods and agents	Identify the type and sources of gaseous and particulate matter Determine the degree of risk Reduce air intake and/or circulation Use mechanical air-conditioning Repair the building shell (sealing of hinges, cracks and openings) Never use a duster Reduce handling of the objects Box or wrap objects in store Use regular housekeeping to remove dust and dirt

Table 2- Evidences of deterioration due to inappropriate temperature and/or relative humidity[3]

Material	Indicators	Possible cause
Metals	Fresh corrosion products Tarnish on polished surface	RH too high (polished metals, e.g. brasses & bronzes, do not tarnish at 15%RH or less)
Glass (Unstable)	Weeping - wet surface Crizzling - fine cracks Glass becoming opaque	RH incorrect or fluctuating too much
Glass (stable) Ceramics Tiles Unfired Clay Stone	Flaking glazes Powdering fabric Efflorescence - salts coming out Cracking/Shattering (outdoor location)	RH too high and/or fluctuating too much Temperature too low (effect of freeze-thaw action)
Fossils Minerals	Pyrite decay (Sulfide oxidation) Salt efflorescence Cracking - sub-fossil bone & shale matrix around specimens	RH too high (accelerates deterioration) RH too low
Natural History such as animals taxidermied animals, Furred or feathered skins, collections or plant herbariums	Moulds & Fungus growth Distortion of organic materials `Spring' in insects	Too high RH RH fluctuating too much
Wood Textiles Bone Ivory Leather	Mould & Fungus	RH too high
	Cracks, warping, flaking	RH fluctuating too much
	Embrittlement	RH too low

[3] http://www.meaco.com/preventa.htm

Paper	Shrinkage Drying out & breakdown of adhesives	
Textiles and Carpets[4]	Insects (moth)	Inappropriate ventilation, Inappropriate cleaning regime and darkness
	Mould & Fungus	RH too high and inappropriate ventilation
	Coloring	RH too high or wetting
	Decay and lack of strength of fibers and weaves	RH too high, lack of aeration and timely inspection
	Acidification of fibers	Gaseous pollutants
	Exacerbation of physical and mechanical damage	Inappropriate transportation and display T and RH fluctuating too much
	Exacerbation of chemical damage	Inappropriate cleaning materials Pollutants, T and RH too high
Plastic	Warping Electrostatic/excess dust	RH incorrect or fluctuating too much RH too low

[4] By Ms. Shokoufeh Mesbahi, RCCCR

Table 3- Types of Museum Object requiring exceptional RH conditions[5]

Materials	Optimum RH (50% unless stated)	Acceptable RH band (40%-65% unless stated)	Sensitivity (indicates need for tighter control of RH than +/-3% per hour, +/-5% per 24 hours)	Notes
Excavated Metals (Non-ferrous)	35% (less if possible)	15-55%		
Excavated Metals (Ferrous)	15% (less if possible)	0-40%		
Coins & Medals	15%	15-40%		Depends on corrosion products, oxides and patina formation, and their degree of stability
Ceramics, Tiles, Stone	20%	20-60%		Depends on the activity of embedded salts, and if corrosion products are present
Geology (general)		45-55%		
Geology - Pyrites and Marcasite (fossils containing these minerals)	30%	30-50%		Should never exceed 50%RH
Geology - Sub-fossil bone, tusks and teeth; fossils with shale or clay matrix				Should never be less than 40%RH
Paper	45%	40-55%		Some authorities recommend less
Photograph products	40%	30-50%		

[5] http://www.meaco.com/preventa.htm

Costumes, Textiles		30-50%		Silk and wool are more sensitive to moisture damage than cotton or linen.
Glass (Crizzled)				Grizzled glass needs a narrow band of controlled RH to prevent advance of this condition.
Furniture (Inlaid)				Inlay work needs particular stability; exact sensitivity varies with wood type, adhesive used, & the condition of surface or barrier coating
Lacquer ware		50-60%		Japanese authorities recommend higher levels (to 70%)
Paper (Stretched)		45-55%		Paper screens, drawings on stretched frames etc. need narrow band
Ivory, bone (Carved)		50-60%		Carved items require more control than anatomical collections (although less than sub-fossil material). Dimensional responses very slow, except when in thin sheets egg miniatures on ivory
Leather, skins, binding		45-60%		Variable according to the tanning process used
Paintings (On canvas)		40-55%	(see notes)	Unlined paintings, or paintings lined with hygroscopic adhesives, are more reactive than those lined with wax or synthetic materials.

				NB Some sources suggest that temperature variations (even short-term and slight) pose a greater risk than RH fluctuations, due to varied thermal expansion of the paint layers
Paintings (On wood)		45-60%		Depends on type, grain & thickness of wood, the ground and the method of jointing sections. Some need narrow RH levels to minimize warping
Wood (painted and varnished)		45-60%		Includes musical instruments, models
Plastic	40%	30-50%		In general, plastic materials have slight humidity responses, but do warp when in thin sheets & exposed to varying conditions. Low RH causes electrostatic properties, encouraging dust accumulation
Parchment, Vellum		50-60%		Narrow control required because of great hygroscopicity
Metalwork (historic)	35%	15-55%		Depends on condition of metal, and oxide formation. Other components (egg wooden handles) may restrict ability to go lower than 50% RH

Temperature and RH Measurement and Monitoring in Museum Environment

Temperature

Temperature is a quantity to express the amount of heat in a substance. IN another word, temperature is a criterion that determines the rate of warmth or coldness in a material.

Temperature is directly related to humidity and intensifies the damages to the objects. It increases the rate of reactions, softens some artefacts, reduces strength in some and increases brittleness in some other.

Relative Humidity

Relative humidity (RH) which is normally expressed as a percentage is in fact the ratio between quantity of water in a specific volume of air in a given temperature and the maximum quantity of water that the same volume of air can keep at the same temperature.

Too low RH in the environment would cause drying and brittleness of organic materials (Animal and plans derivatives) and their cracking; while RH of too high could lead to swelling and dampness, corrosion of metals, fungus and mould growths and pest activities. Moisture fluctuations would cause cracking, flaking, and wrapping.

The effects of above-mentioned variables on cultural properties would necessitate their constant monitoring and measurement in museums. To do these there are several kinds of analogue and digital thermometers, hygrometers and data loggers. Data is registered manually through these devices (Except for thermo hygrographs), while with data loggers one can register precisely, automatically, and continuously the amounts of temperature and humidity in defined time schedules, as well as access their fluctuations diagrams. Therefore despite the fact the data loggers are more expensive than analogue and digital thermometers and hygrometers, but they are much more effective and advantageous for monitoring of the condition of the museums' micro climates and related information.

Fig. 1- Analogue (First row) and digital (Second row, left) Thermometers and Hygrometers, and Data Loggers (Second row, right, and third row).

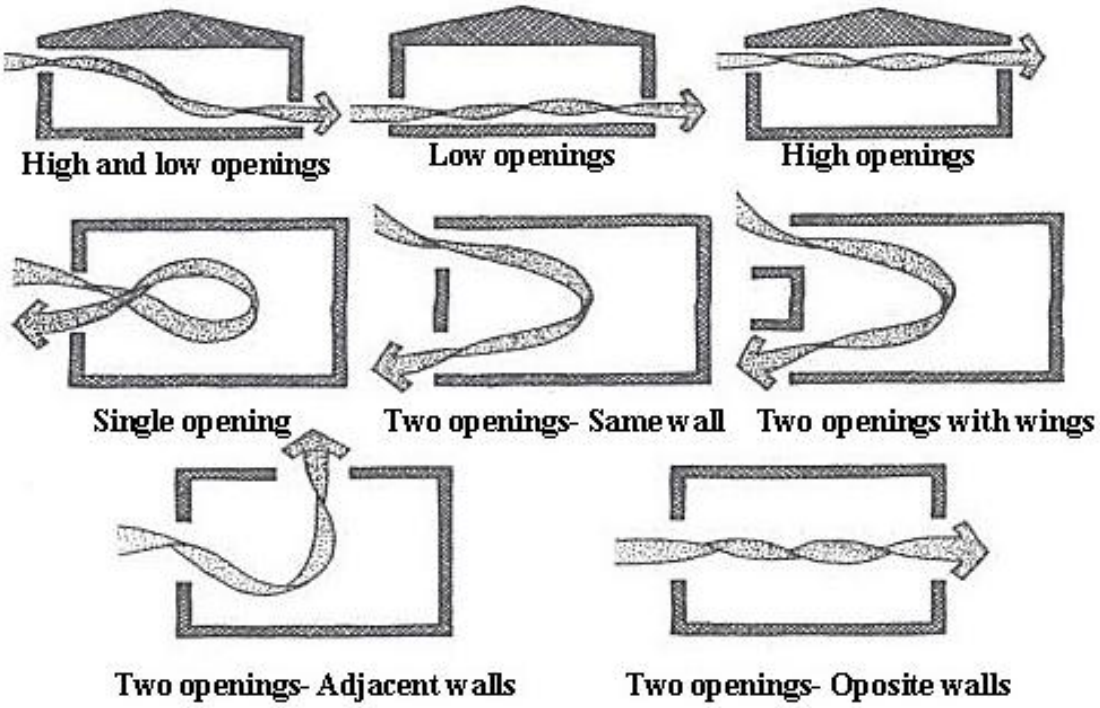
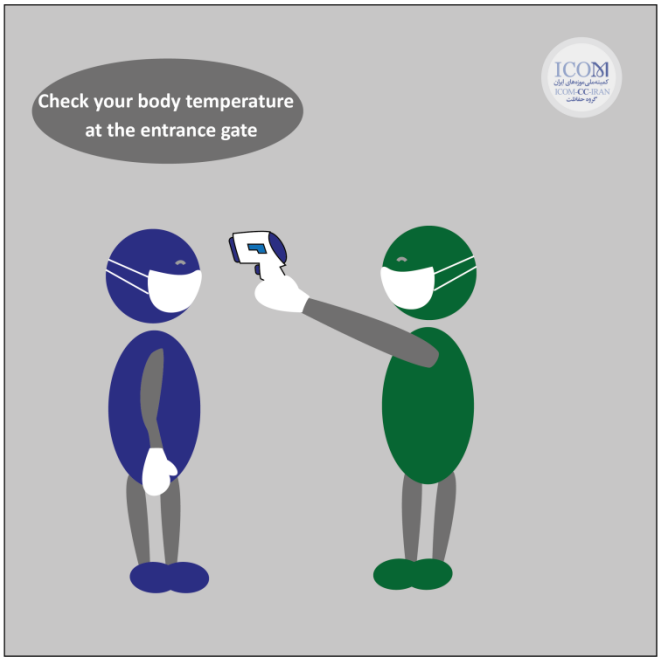
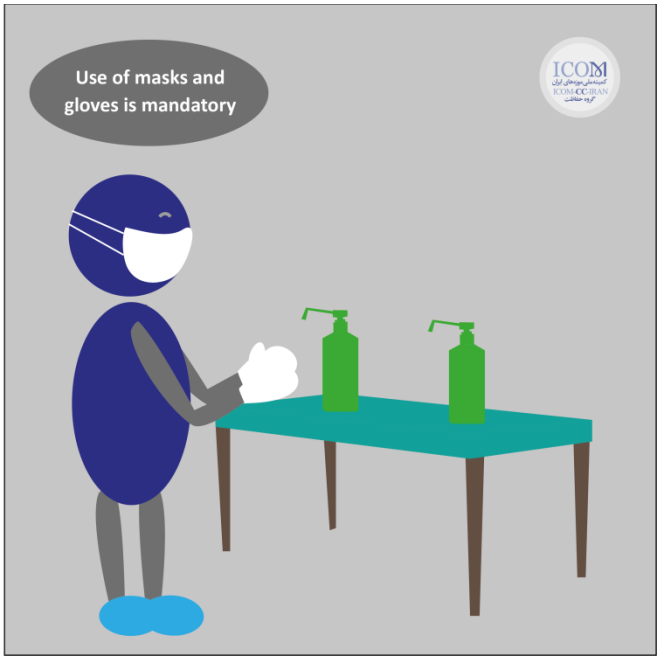


Fig. 2- Different types of natural ventilation in buildings.

Guiding Signs [6]

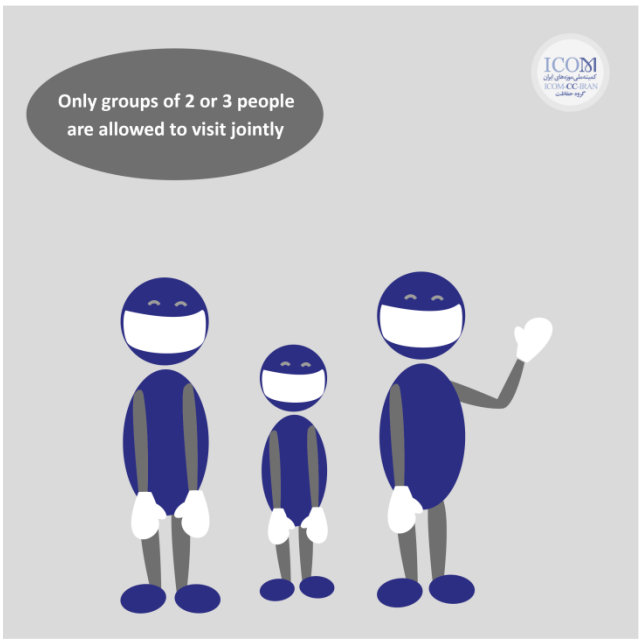
(To access the signs' files please visit IRAN ICOM Conservation Commission website)



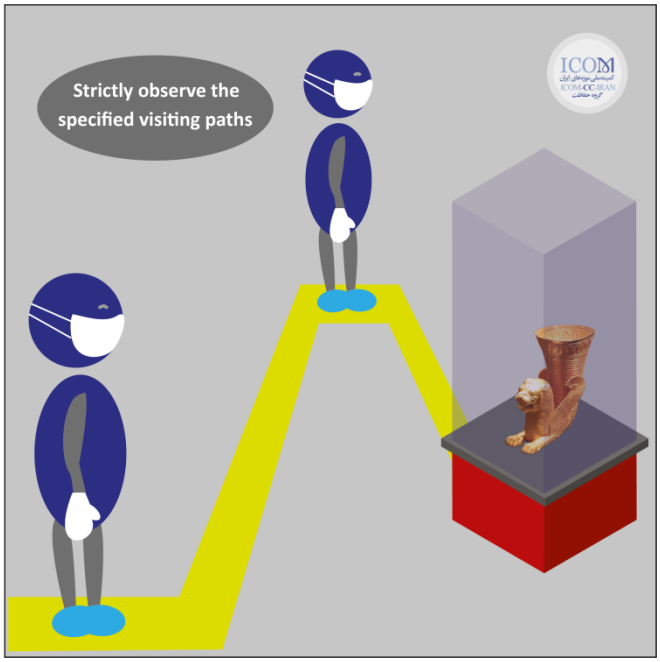


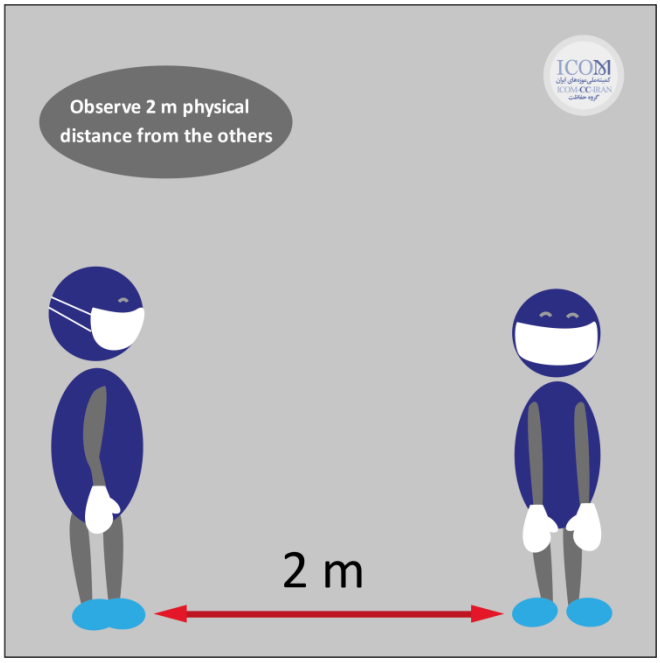
[6] Designed by Dr. Parisa Abdollahi

Lore

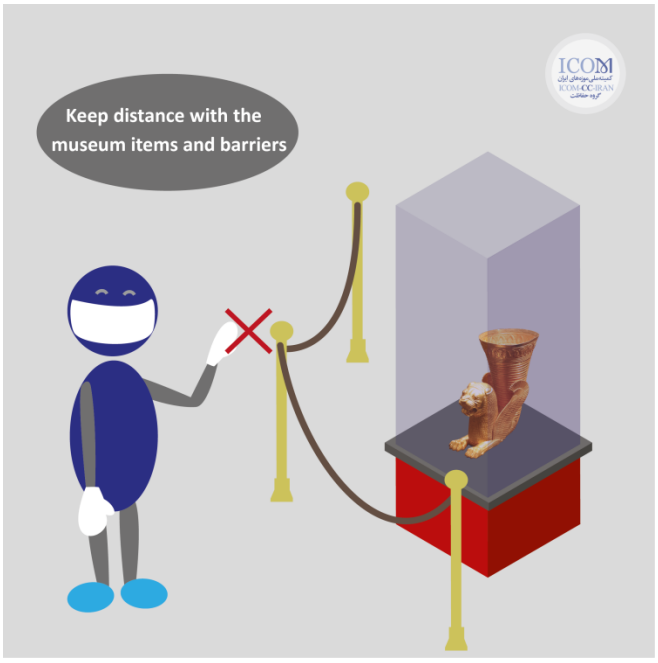

Only groups of 2 or 3 people
are allowed to visit jointly


Leave your belongings with
the safekeeping personnel


Strictly observe the specified visiting paths


Observe 2 m physical distance from the others
2 m

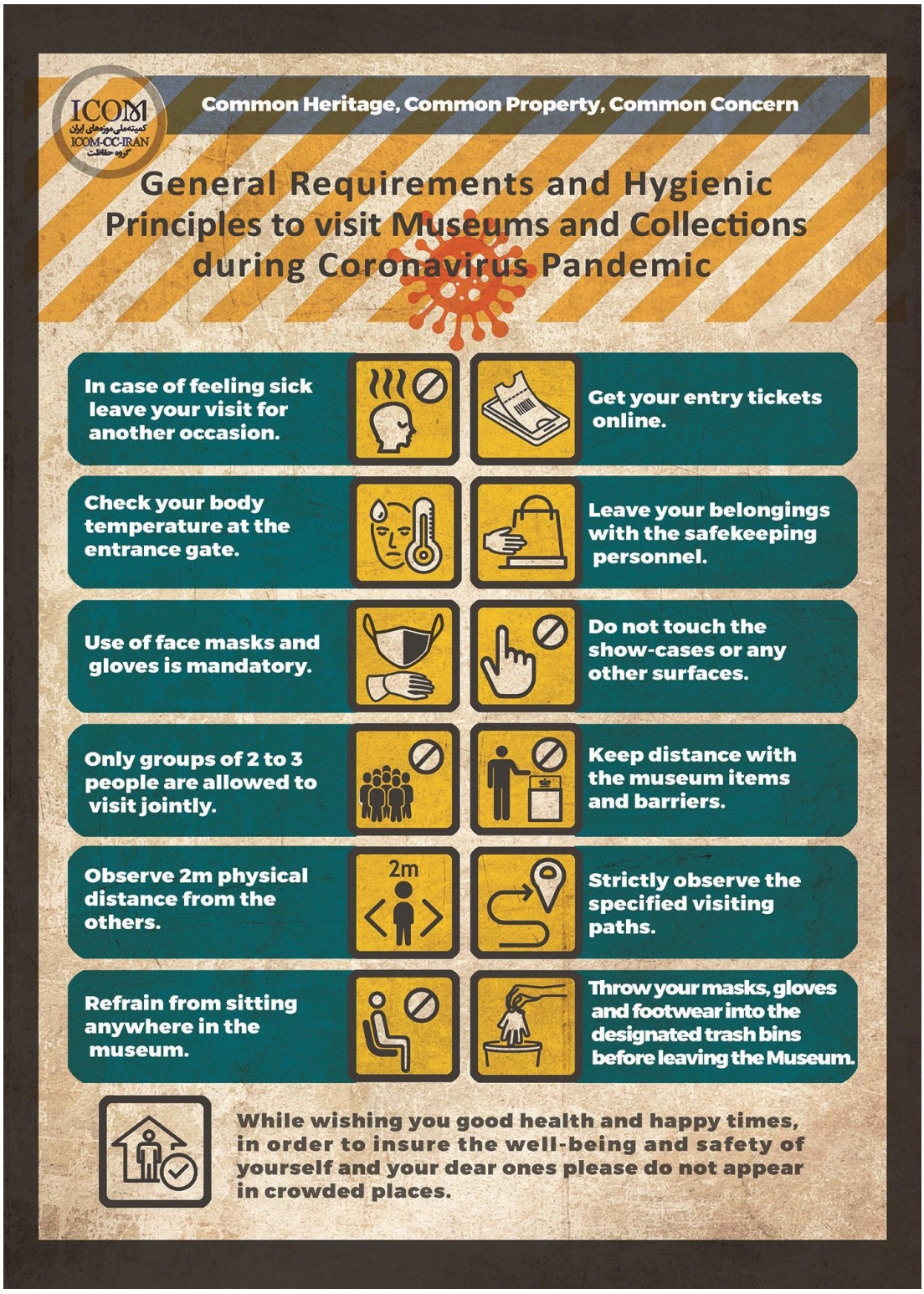

Do not touch
the show-cases


Keep distance with the
museum items and barriers


Refrain from sitting anywhere in the museum

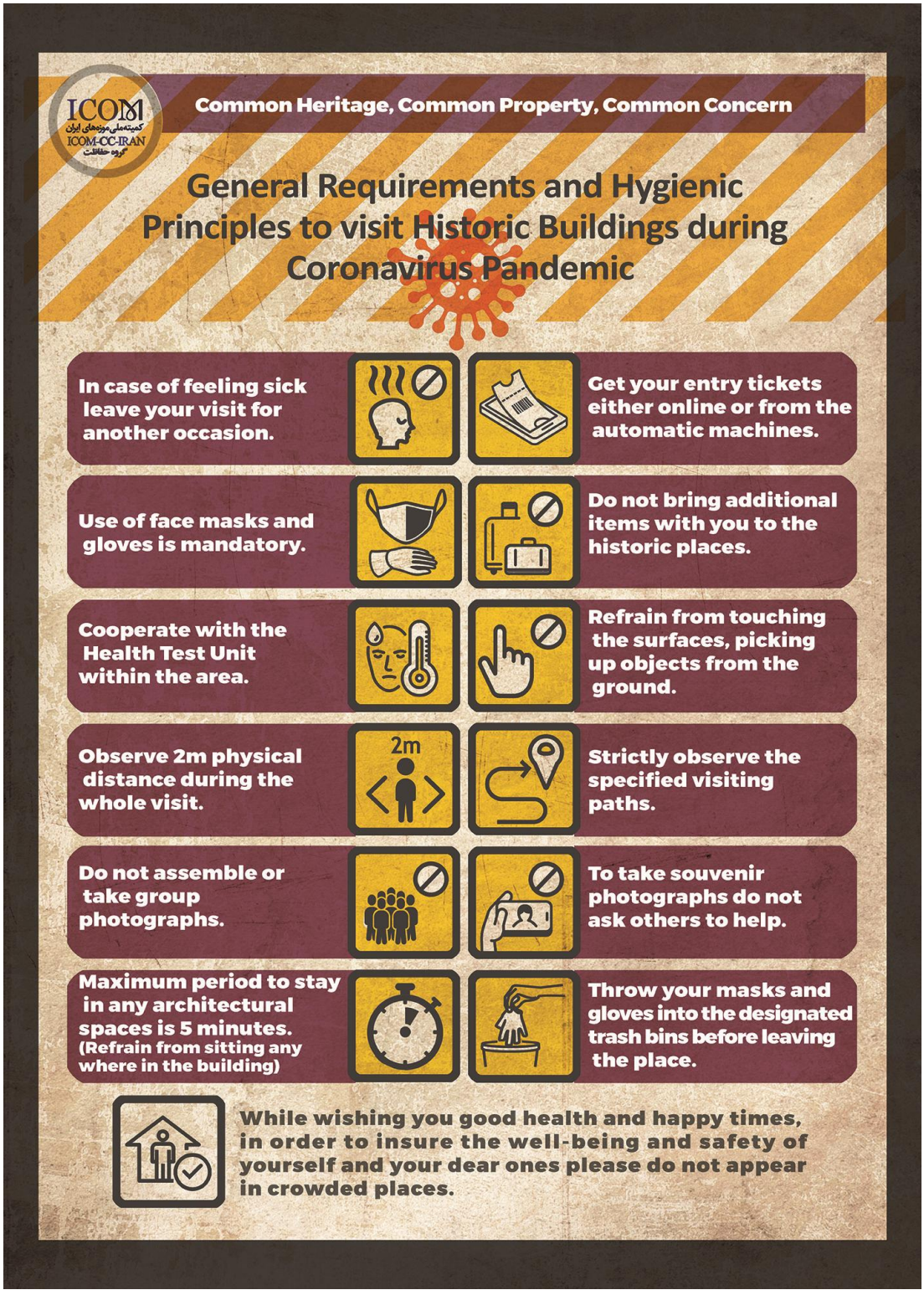

Throw your masks, gloves and footwear into the designated trash bins before leaving the museum

Infographic posters[7]



[7] Design by Dr. Behshad Hosseini


ICOM
کمیته‌ملی موزه‌های ایران
ICOM-CC-IRAN
گروه حفاظت
Common Heritage, Common Property, Common Concern
General Requirements and Hygienic Principles to visit Site museums and Historic Areas during Coronavirus Pandemic
In case of feeling sick leave your visit for another occasion.
Get your entry tickets either online or from the automatic machines.
Cooperate with the Health Test Unit within the area.
Use of face masks and gloves is mandatory.
Strictly observe the specified visiting paths.
Refrain from touching the surfaces, or picking up objects from the ground.
Do not assemble while visiting the historic area. (Pre-arrangement is needed if the visit of over 20 people required)
2m
Observe 2m physical distance from the others during the whole visit.
Do not sit and refrain from conducting any communal program.
Maximum period for taking photograph is 10 seconds.
(Group photograph is prohibited)
Take maximum care in observing the hygiene of the washrooms.
Throw your masks and gloves into the designated trash bins before leaving.
While wishing you good health and happy times, in order to insure the well-being and safety of yourself and your dear ones please do not appear in crowded places.


ICOM
کمیته ملی موزه های ایران
ICOM-CC-IRAN
گروه حفاظت
Common Heritage, Common Property, Common Concern
General Requirements and Hygienic Principles to visit Historic Buildings during Coronavirus Pandemic
In case of feeling sick leave your visit for another occasion.
Get your entry tickets either online or from the automatic machines.
Use of face masks and gloves is mandatory.
Do not bring additional items with you to the historic places.
Cooperate with the Health Test Unit within the area.
Refrain from touching the surfaces, picking up objects from the ground.
Observe 2m physical distance during the whole visit.
2m
Strictly observe the specified visiting paths.
Do not assemble or take group photographs.
To take souvenir photographs do not ask others to help.
Maximum period to stay in any architectural spaces is 5 minutes. (Refrain from sitting any where in the building)
Throw your masks and gloves into the designated trash bins before leaving the place.
While wishing you good health and happy times, in order to insure the well-being and safety of yourself and your dear ones please do not appear in crowded places.


ICOM
کمیته‌ملی موزه‌های ایران
ICOM-CC-IRAN
گروه حفاظت
Common Heritage, Common Property, Common Concern
General Requirements and Hygienic Principles to visit Archives and Libraries during Coronavirus Pandemic
To reduce physical presence use digital and online sources.
In case of feeling sick leave your visit for another occasion.
Leave your belongings in safekeeping closets.
Cooperate with the Health Test Unit within the area.
Use of face masks and gloves is mandatory.
Do not touch the surfaces.
Observe 2m physical distance when using the reading hall and public areas.
2m
Disinfect the reading table before using it.
Original books/documents must be quarantined for three days if used.
Use your personal stationeries to make notes.
To observe social distance do not assemble in reception area.
Throw your masks and gloves into the designated trash bins before leaving the place.
While wishing you good health and happy times, in order to insure the well-being and safety of yourself and your dear ones please do not appear in crowded places.

Website: **www.icom-iran.com**

www.icomcc-iran.com

Email: icom.iran@gmail.com

icom.cc.iran@gmail.com

Instagram: instagram.com/icomiran.official

instagram.com/icom.cc.iran

Telegram Channel: https://t.me/ICOMCCIRAN