

# **RISK ASSESSMENT: PANDEMIC**



PRESERVATION OF BUDDHIST TREASURES RESOURCE is the free online resource for monasteries and communities, with practical information on digital documentation, risk assessment and disaster recovery, safer storage, and preservation of thangka and other treasures. The resource comes from over 50 years of preservation work in monasteries.



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## **RISK ASSESSMENT: PANDEMIC**

Introduction  
Protection from Human Transmission  
Transmission of the Virus from Surfaces Within Monasteries  
How to Control Viral Transmission Without Damaging Monastery Treasures  
Conclusion  
Acknowledgments

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## Caring for Monastery Treasures in the Time of COVID-19

### Introduction

COVID-19 discussions have been primarily about keeping people safe by implementing good health-care practices, such as physical distancing, wearing face masks, and washing your hands. Recently, we have received questions from monasteries about the safety of monastery treasures with use of disinfectants and bleaches, and if the virus can remain on the surface of treasures if touched by a person who is infected, and thus transmit it to others within the monastery.



*Can monastery treasures carry COVID-19 from an infected person to monks and tsunmas?*

We researched current science and here is a summary of key points for safety of monks and nuns, and for the safety of the Buddhist treasures used in monasteries every day for pujas and part of daily life.

## **Protection from Human Transmission**

Follow the advice of your monastery and health authorities, including wearing face masks, hand washing, and practicing physical distancing. Many monasteries are on lockdown, and most are closed to tourists and visitors.

By closing the gates of your monastery, you can go a long way to keep the virus out. With lack of interaction with infected people, and with surfaces and treasures within monastery, there would be reduced need for disinfectants being applied to fragile traditional Buddhist treasures. Disinfectants are applied on high-touch utilitarian surfaces as a safety precaution.

Here are actual reports from monasteries located in different countries:

Here is a description from a monk living in a traditional monastery:

*“Our monastery is on lockdown now. The monastery has closed its doors to almost everyone outside the monastery. Some monks were on vacation and were told 'If you want to come back, quickly come back to monastery, or if you want to be at home then please stay at home.' With the virus, everything is slowed down at the monastery and shedra, no visitors come, and we maintain social distance. It is locked and closed so nobody can go in and nobody can come out, except for food delivery. The monastery administration is trying to follow advice of experts. If a monk has an illness, a minor problem, the monastery has a clinic, and everything is provided. If the virus becomes serious, they may set up a virus clinic in the monastery, but for now monks would go to hospital for an emergency or the virus. There are virus tests available if necessary. We are offering food and other provisions to surrounding community members in need.”*

A monks from a monastery in a different region reports this:

*“Monastery is doing fever checkup once every day for each monk*

- *Not allowing monks to go out except for very important appointment or tasks*
- *Built up washing hand tap at entering gate for all*
- *Giving a talk on awareness of the virus*
- *Monitoring visitors, for example, registering their details*
- *Not allowing monks to congregate in huge groups*
- *Keeping the important mobile numbers of health and government officials*
- *Stocking rations to have enough for at least for a month*
- *We are not doing any help to nearby community because it's not needed now”*

A nun describes this:

*“NO visitors to nunnery, not even family and no tourists. Nuns are not going out to help others, they are staying safe inside and praying. All are inside and doing puja for sentient beings.”*

A monk describes the change in rules through the months of this pandemic: *“Here the monks usually have quite a bit of freedom, except during the summer retreat. The monasteries closed their doors to visitors early on, well before the national lockdown. At first the senior monks were still out and about, but after the national lockdown they remain within monastery walls.”*

This nun is concerned about safety while interacting with the surrounding community: *“Monastery is in lockdown, no family or tourist visitors and monks cannot go beyond monastery gates. However, because the monastery is generously offering food and basic supplies to the laborers working in the area, who during this time have no work and thus are unable to feed themselves and their families, there is interaction between monks, local police/army and government officials, and those receiving assistance. Although this takes place outside of the monastery physically, personal protective equipment (PPE) is not consistently worn during these transactions, nor is physical distancing consistent. In some cases, the monks are wearing masks, some are wearing masks and gloves, however, community officials or recipients are often seen not wearing PPE. Recipients are sometimes spaced for physical distancing while receiving gifts, but rarely wear or are provided with PPE.”*



*A tsunma distributing food supplies to community members*

Because an infected person can have mild symptoms or none at all, it would be possible for them to bring COVID-19 into the monastery without anyone realizing it. Transmission from person to person is the main route of infection. Therefore, strategies that keep outside people, and thus the virus out of the monastery, keep those inside safe, and makes extensive disinfecting unnecessary. A discussion about disinfecting follows later in this chapter.

## **Summary**

Closing monasteries and nunneries to visitors is an effective way to protect monastics in a pandemic. Closing monastery gates is a traditional thing to do.

## **Transmission of the Virus from Surfaces Within Monasteries**

Wearing masks that cover the nose and mouth, and safe distancing are the most important ways to prevent spread of virus. There is a chance, however that people can catch COVID-19 by touching contaminated surfaces and then touching their eyes, nose or mouth. In theory, for example, if a monk, nun or community member who is active within the monastery has COVID-19 and exhales or coughs on a ghanta, and if another person picks up that ghanta soon after, the virus could be transmitted.

The risks are probably low for most of the thangka, statues, textiles, puja vases, wall paintings, texts, etc., in a monastery. How long does the virus live on surfaces outside of the human body? The COVID-19 is a membrane-envelope virus with glycol protein spikes. It degrades with drying and air exposure, and in higher temperatures, higher relative humidity, and in sunlight with high ultraviolet-content light waves. Since this is a new virus to researchers, they are sharing information based on previous viruses, and updating as fast as they discover more facts.

If, for example, an infected monk was a chopon during a puja, can other monks become infected from what he touched? There is as of yet no definitive answer to this. We can't see the virus to easily determine this. However, if he breathes directly on others, that could be very dangerous.

The strength of the virus begins to weaken as soon as it is transferred from a person to a material. It is currently not known precisely how long it takes to deactivate naturally. The nature of the material is also a factor. For example, the virus is predicted to persist longer on a smooth metal surface such as a ghanta, than on a soft-textured surface such as a gompa decorative textile.

Based on data from previous research, currently the guidelines are that for paper and paper-board products, 24 hours is the minimum for safety. For example, if a monastic infected with the virus was reading a traditional text or a book, it should be left untouched for a day, and even better, 2 days. Other expert sources are saying that on some surfaces the virus could be viable for up to 9 days maximum. Scientific research continues. Isolating monastery treasures after they have been touched is the best and safest way of "disinfecting" them.

## **Summary**

The science is not firm about the possibility of virus transmission on surfaces, and thus there is recommendation to wear gloves, hand-wash with soap, etc., and use hand sanitizer. There is also discussion about virus remaining active on supplies brought into the monastery kitchen and other deliveries, if delivered by an infected person.

As for monastery treasures, if people aren't touching things then no transmission is possible. Even if the virus is deposited, for example, if someone coughs on a thangka or statue, letting them sit quietly for a few days is the best thing to do to prevent spreading the virus back to monastics.

### **How to Control Viral Transmission Without Damaging Monastery Treasures**

There have been many questions in monasteries and communities concerning transmission of the COVID-19 virus from an infected person who lives inside the monastery/community, and also has touched monastery treasures while used in meditation practice, etc.

Monastery lockdown, isolation periods for those who have traveled or been exposed, social distancing, washing hands often, and wearing masks and gloves are all in practice to varying degrees by the residents of Buddhist monasteries. There is also use of soaps, solvents, and mixed chemical sanitizers of various ingredients in the cleaning of the monastery premises.

One monastery let us know that they are doing no disinfecting, just regular scheduled cleaning and extra hand washing. This is an approach that can be effective where there is not already an outbreak of the disease. However, if there is infection within a monastery and close community, monasteries in many countries are spraying and wiping with various mixtures on the monastery premises.

Although cleaning of smooth, hard, often-touched surfaces such as door handles and porcelain is often recommended, the same techniques cannot be applied to fragile and blessed thangka, statues, texts, textiles, etc. We are suggesting that there are things to do, and then there are things not to do, so that both monastics and monastery treasures will have long and beneficial lives, and that is the goal in every monastery.

If, for example, the monk was a chopon or kunyer, and became ill with the COVID-19 virus, your monastery might follow public health guidelines to clean and disinfect monastery facilities, however *we are not suggesting or recommending cleaning and disinfecting of monastery treasures.*

It would be easier and less damaging to trace with whom he was in close contact and what monastery treasures he touched during the day, rather than applying disinfectant widely to fragile thangkas and statues, etc. Those monks he was in close contact with will then get tested and go into isolation to avoid spreading it further through community transmission.

In the same way the people go into self-isolation for 14 day, those treasures he touched can also go into passive isolation for a few days, rather than be subjected to chemical cleaning, which can damage the treasures. Passive isolation is also known as quarantine. Quarantine for treasures, whether in a museum, or in shedra, library,

archives, or a monastery, is often used when certain treasures have active mold or insect infestation. This prevents wider contamination and limits damage.

Quarantining in this current situation is a technique for both people and treasures, a technique to prevent the spread of infection. For example, if a nun who became ill with COVID-19 very recently used the library and had read from either books or traditional texts, the nun herself would be quarantined. It would not be advised to wipe or spray the library and texts with disinfectant. Strong disinfecting techniques might be suggested by the monastery or health authorities for her room, and common areas where she recently went. There is no need to spray or wipe disinfectant on the library or specific books. Instead, the books and texts should not be used for at least 48 hours to avoid the spread of the virus to the next nuns who read that text.

When Buddhist treasures are brought out of storage for use according to the Lunar calendar, their return to the storage area provides natural quarantine time. Kuyner and chopons could wear gloves and wash their hands frequently, etc., for safety and respect.



*Monastery storage rooms can provide safe location for isolation*

The great virtue of quarantining is that it does no damage to your monastery treasures. There is nothing that's going to go wrong if you just don't touch them for a few days. Chemicals, used for disinfecting either our hands or floors and walls, can cause permanent damage.



There is a difference between cleaning and disinfecting. For hard surfaces and smooth surfaces in the monastery premises that are often cleaned regularly, washrooms for example, it is recommended ideally to clean before disinfecting. Cleaning can remove some virus particles and disinfecting contains chemicals that help to deactivate the virus. Strong chemicals used for disinfecting surfaces can cause damage to those using them, thus the need to wear Personal Protective Equipment (PPE), including gloves and appropriate masks and clothing covering.

And for Buddhist monastery treasures in any case, “cleaning” is not the same as “disinfecting,” yet both efforts to prevent infection can cause permanent damage. Monastery treasures are not routinely cleaned as the floors and walls, kitchen and toilets, and they are not made to be, nor intended to be.



*A monastic wearing Personal Protective Equipment (PPE) sprays disinfectant in monastery dining hall*

It is agreed that a first line of defence is hand washing, and many monasteries have set up hand washing stations at the entrance and throughout the monastery campus. People are also using hand sanitizer. High alcohol content is known to be most effective in hand sanitizer, and it is used widely everywhere in the world where it is available. In fact, it has been sold out in many shops and people are mixing their own formulas. Hand sanitizer, when used properly, can create safer situations for people.

However, in proximity to monastery treasures the hand sanitizers can be quite damaging. There are many materials found in treasures that that will dissolve in alcohol, for example, paints, dyes, and inks.

There are many formulas for hand sanitizers available on the internet that are chemically very strong. Some formulas for “mix it yourself” hand sanitizers available on social media include diluted bleach. Although bleach is recommended in general for disinfecting, even a slight misuse can cause damage. Hand sanitizers and disinfectants that contain bleach can harm humans when inhaled and on skin, and cause damage to monastery treasures.

Even store-bought hand sanitizers often contain ingredients to make them more pleasant to use for people, in addition to the active reagents such as alcohol. Most hand sanitizers are in gel form that smells attractive, is a lovely color, and promises to moisturize your hands. Some products claim to be “all natural” and some claim to kill all bacteria. These added skin-softeners and colorants in hand sanitizers can also stain and permanently disfigure treasures. And your hands are often sticky after using hand sanitizers. It is important that your hands are completely dry and are not sticky before touching anything! Hand sanitizers have been tested by museum scientists and it was determined that residue can damage paper over time.



*Although hand sanitizers can be effective in disease prevention, they can cause permanent damage to treasures*

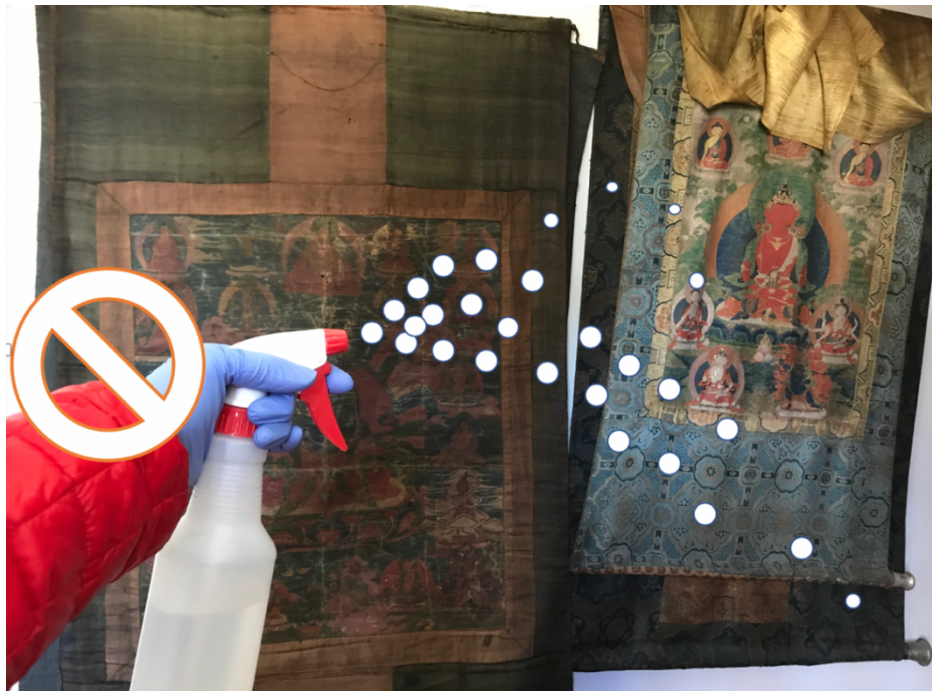
Disinfectants, cleaners, and sanitizers, no matter what they are called, have a recommended three-phase application process: application, designated time to leave in place to interact with the surface, and then removal (rinsing). The application, contact, and rinse times vary with the specific chemical mixture and should be on the instructions provided by the manufacturer.

Which chemical compounds are in your disinfection mixture? Have you asked for the formula? Are you aware of the recommended process and safety precautions? Are you spraying or wiping? In summary, these products are never to be used on monastery treasures.



*Using disinfecting “wipes” directly on monastery treasures can cause permanent damage*

The formula of disinfecting sprays varies widely, as does the application technique. To protect your monastery treasures while you are protecting your monastics, it is important that the sprayed area is targeted carefully, as aerosol spray droplets can travel further than intended and land on and damage monastery treasures nearby.



*Aerosol spray can travel further than intended, causing permanent damage to treasures*

We all realize that it is best not to use any liquids, sprays, or fumigants directly on your monastery texts and treasures. So, now it is necessary to take care when applying them in close proximity to texts and treasures. All of those solutions that are being used for spray and wiping for health reasons can also cause damage to monastery treasures. These solutions can result in staining and wrinkling. They can cause the dye and print in the ink and book-cover cloth and other textiles to start "bleeding" all over everything.



*Many paints and dyes are soluble in liquids, sprays, and fumigants.  
The red color in this carpet was soluble in a water/alcohol solvent cleaning agent.*

Spraying has its place in certain areas of the monastery, such as in public areas and on hard surfaces like door handles, which will hold the virus for longer. Some ceramics or metals can be disinfected safely.

Spraying, or any method of application of disinfectants/cleaners, is not safe for monastery treasures. Hand washing and wearing of disposable gloves to prevent contamination is safer for both people and the treasures.

Both scientists and monastery officials don't really know how likely it is that a seldom-touched surface, for example, thangka on a gompa wall, can transmit this virus. This contrasts to often-touched surfaces, such as the hard, smooth surface of a door handle. It can be cleaned and disinfected easily. These utilitarian surfaces are different from monastery treasures in their durability and purpose.

For monastery treasures, simply use isolation to prevent or deal with any possible contamination. Disinfecting solutions will damage many treasured and empowered materials.



*When spraying fumigants or disinfectants in gompas, extreme care must be taken to make sure that no spray reaches the monastery treasures*

Several monasteries report that they have teams who have been trained by experts, who are wearing PPE and spraying disinfectants. They also go to other monasteries to assist in these efforts when they are invited to do so. They wear PPE and keep social distance while working in other monasteries. Although it is unclear exactly which chemicals they are using, their work is described as using spraying a bleaching powder in gompas. Some of the images of this work show spraying on or close to texts, statues, and thangka.

Some practical suggestions include covering monastery treasures in a room before any spraying takes place in that room. Even better is to apply cleaning/disinfecting solutions directly onto mops or rags outside of the room, far away from the treasures, and then the mops/rags are used within the room, without touching the treasures.

Other images from monasteries show spraying on interior and exterior walls with wall paintings. The monks said they are using the recommended disinfectant solutions containing bleach or alcohol, considered effective for destroying remnants of virus on surfaces. Wall paintings are easily and permanently damaged by disinfectant and cleaning solutions.

## **Conclusion**

Virus risk is to people. The biggest risk to treasures from the virus is the disinfecting. How do you prevent virus transmission to people?

Certainly, human life comes first, and that is taught in Disaster Response training. Monastery treasures are important to Buddhist practice. Health measures can be carried out effectively without causing damage to treasures.

Always use disinfectants that have been approved for use against COVID-19. If disinfection of non-treasure surfaces is required, use methods of application that don't inadvertently splash or spray onto texts, thangka, statues, wall paintings, etc.

Simple isolation is effective, and safer than trying to clean, spray, bleach, or disinfect close to or on fragile lineage treasures. Monastic caretakers know this. What we do now impacts both the health of monastics and the longevity of monastery treasures. We need to carefully choose techniques for response to COVID-19, which need to be both effective and appropriate. For delicate treasures, even if touched by an infected person, usually the safest response is well-timed isolation. Wait until the virus deactivates naturally.

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དཔོན་པའི་གནའ་དངོས་གཅེས་སྤྱད་སྤྱོད་བཅར་ཚོགས་པ།

**Digital inventory** འཕུལ་ཆས་ཐོག་ནས་དངོས་ཐོར་འགོད་པ།

**Risk assessment and disaster mitigation** ཉེན་ཁ་ཐོན་འགོག་དང་ཚོད་གཤོང་ལེན།

**Recording digital interviews with elders** མི་རྒན་རབས་དང་འཕུལ་ཆས་ཐོག་ནས་བཅར་འདྲི་སྒྲིག་སྤྱད་ལེད་པ།

**Scientific research** ཚན་རིག་ཉམས་ཞིབ།

**Current project** ད་ལྟོ་ལས་འཆར།

**Free online preservation resource for communities and monasteries**

དཔོན་པ་དང་སྤྱི་ཚོགས་ཀྱི་ཚེད་དུ་གནའ་དངོས་གཅེས་སྤྱད་ཐབས་ལམ། ཨིན་ཏེར་ལྷོ་ཐོག་རྒྱ་མཐེན་དུ་ལུག་པ།



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## Basic Elements of Emergency Plan for Monasteries and Communities

1. People First
2. Who Do You Call?
  - Who is in charge?
  - Emergency phone numbers
  - Full monastery residence list, to text, WeChat, WhatsApp , etc.
3. Who Should Salvage Collections?
  - Monastery Treasures Salvage Team (trained previously)
4. Where to Bring Damaged Treasures
  - Another monastery?
  - Your monastery dining room, classrooms, etc.
5. What Do You Salvage First?
  - Decide your priorities, preferably before an emergency
  - Mark the location of these priority treasures on floor plans
6. Where Are the Emergency Supplies?
  - Stockpile supplies before an emergency occurs
  - Mark the location of supplies on floor plans
  - Contact local vendors for additional supplies
7. Who Provides Security During an Emergency?
  - Monastics, community members, or government?
8. What Information Technology Will You Need to Replace?
  - Survey your hardware and software currently in use
  - Store monastery files in "cloud" or duplicated offsite
9. Do You Have Insurance?
10. Who Has the Plan?
  - Make a list of who has copies of your Emergency Plan
  - Update Emergency Plan and Team





## Preservation of Buddhist Treasures

### **RISK ASSESSMENT** ཉེན་ཁ་དཔྱད་ཞིབ།

- ❖ **Pandemic** ཡོངས་ཁྱབ་རིམས་ནད།
- ❖ **Earthquake** ས་ཡོན།
- ❖ **Fire** ཟེ།
- ❖ **Water** ལྷ།
- ❖ **Theft** ལྷན་ཅ།
- ❖ **Pests** གནོད་འབྲ།
- ❖ **Temperature and Relative Humidity** རྫོང་ཚད་དང་རྫོས་བཅས་ཀྱི་བཞུའ་ཚན།
- ❖ **Human Choices** མིའི་འདམ་ག།
- ❖ **Pollution** འབགས་བཙོག།
- ❖ **Light** ལྷོག་ཟེ།

### **EMERGENCY PLANNING AND DISASTER MITIGATION** རོ་དྲག་འཆར་གཞི་དང་རྫིན་ངན་ཞི་འཇམ།

### **SAFE STORAGE** ཉེན་མེད་དོས་ཁང།

### **DOCUMENTATION** ཡིག་ཆ་ཚོ་བཞོད།