

**Science & Technology Collection and  
Preservation Management Policy**

**Of**

**National Council of Science Museums (NCSM)**



**Ministry of Culture  
Government of India**



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## Background Note

One of the **principal objectives of NCSM** is “*To collect, restore and preserve important historical objects, which represent landmarks in the development of science, technology and industry*”. Over the years, NCSM has sporadically collected several artefacts of science and technology and has documented some of them. A need is now felt to frame a comprehensive collection and preservation policy and a long-term action plan for collection and preservation of scientific archaeology.

Historically, the *raison d'être* for the mandate to collect was for three primary reasons:

- 1) To save scientific and technological artefacts as a part of the nation’s S&T heritage;
- 2) To conduct research and evaluate traditional science and technology in the light of modern scientific and technological concepts;
- 3) To educate the public by portraying the growth of S&T in human welfare with a view to develop scientific awareness and attitude among the masses.

Although being mandated to collect, conserve and display scientific and technological objects of cultural and historical significance as one of its major objectives, the science museums and science centres under the NCSM have had undergone evolutionary changes in their functional philosophy, which resulted in a de-prioritization of its collection-related activities.

As a result of this de-prioritization, at present:

- There is no formal collection policy, collecting plan, and procedures for collection management exist.
- Storage facilities and housekeeping are inadequate except for the central storage facility at the CRTL.
- Collection care is not a well-developed and prioritized activity.
- Artefact-based research and publication functions are almost absent, barring a few stray efforts during the initial years.

In view of the above, the Society of NCSM in its 32nd meeting held in May 2020, had set a priority for collection activity by NCSM vide Item No 32.8.6 (*NCSM may consider collecting and preserving scientific archaeology for information of future generation*).

## Definition of Scientific Archaeology

**Oxford Advanced Learners’ Dictionary** defines Scientific Archaeology (synonymous with artefact of science and technology) as “*an object that is made by a person, especially something of historical or cultural interest*”. As per the **Merriam-Webster Dictionary**, science and technology artefacts are “*material*

*objects made by (human) agents as means to achieve practical ends*". Moreover, these artefacts are *"as kinds not seen as natural objects"*.

## **Vision Statement**

*"NCSM's Collection will consistently provide the Nation with the best available tangible and intangible records of the historical as well as the contemporary periods pertaining to the development of science, technology and industry in India, contributions of Indians to S&T and the socio-cultural impact of the development of science, technology and industry on the Indian society."*

### **Goals and Objectives of Collection**

NCSM will collect and preserve Scientific & Technological artefacts and will display them to the public for:

- ❖ Conserving and preserving the scientific and technological heritage of the country.
- ❖ Educating public about scientific and technological heritage of India.
- ❖ Facilitating research in history of science and technology.

Development of the collection will meet both the immediate and long-term objectives of NCSM. Such development will build on strengths and address weaknesses of the collection as assessed by Curator(s) in charge, and will take into account current and future projects and needs. Strategies will include both planned and opportunistic approaches.

## **Purpose of the Collection and Preservation Management Policy**

This Collection and Preservation Management Policy is intended to document the policies that guide the development, presentation and care of NCSM's S&T collection consistent with the Objectives of NCSM and with professional museum standards. Through this Collections Management Policy, NCSM shall try to ensure that:

- ❖ Its collections are accounted for by collection inventory and documented in the collections management database;
- ❖ Its collections are protected, secure, cared for, and preserved;
- ❖ Acquisition, accessioning, transfer/exchange and de-accessioning of the collections are conducted in a manner that conforms to NCSM's objectives, complies with applicable law, and reflects the highest ethical standards;
- ❖ Access to the collections in the galleries and exhibitions and access to collection information for research are permitted and appropriately regulated; and

- ❖ Collection-related activities promote National Pride and Public Engagement in Science rather than individual pride and financial gain.

## **Nature and Scope of Collections**

- ❖ NCSM will collect Scientific & Technological artefacts from industries, government departments, colleges and universities, research laboratories, medical colleges / institutions and from individuals.
- ❖ Scientific collection will comprise of important and historic instruments and equipment, which support the engagement of Museum /Science Centre visitors with the practices and processes of science.
- ❖ Collections will also concentrate on items which represent major technological and historical developments, and on significant individuals. In addition, they will target artefacts that tell key stories and themes and those which characterize the cultural impact of technology.
- ❖ NCSM will collect personal memorabilia of renowned scientists.
- ❖ NCSM will also collect Archival documents including Books, Letters, Stamps/First day covers, photographs etc. of scientific and historical importance, archival audio clippings and video footages, digital multimedia etc. In cases where the original document is not available, NCSM may collect good quality and authentic copies in digital format or otherwise.
- ❖ NCSM may collect replica/prototype models of instruments/exhibits/scientific toys which are of relevance.
- ❖ NCSM may also collect contemporary objects which are of scientific/technological relevance.

## **Criteria for Acquisition**

NCSM will strive to acquire artefacts that generally are complete and in good condition, and which are well documented. The decision to acquire an artefact will be based upon the following considerations:

- ❖ Relevance to the Objectives of NCSM and to collection development objectives.
- ❖ Significance, such as association with an event, person, historical period, or geographic area (any artefact made or used in India and/or related to India or by any Indian).
- ❖ Representation of themes, processes, activities, and cultural norms with significance to India.
- ❖ Availability of human and financial resources to acquire, document, preserve, store, and display the artefact.

- ❖ Opportunities for use in exhibitions, research, and other program requirements.
- ❖ Physical condition.
- ❖ Socio-Cultural sensitivity to India, its history and people.
- ❖ Documentation to support ownership, authenticity, study, and use.
- ❖ Absence of threats to users or to other elements of the collection.
- ❖ Absence of restrictions on use or disposition.
- ❖ Compliance with applicable legislations and regulations.
- ❖ Compliance with Ethical considerations.

## **Procedures for acquisition and accessioning**

- ❖ NCSM will procure artefacts by gift & donations by individuals /organizations, permanent loan and by transfer from other govt. departments /universities/ research institutes and by any other similar modes.
- ❖ NCSM will collect artefacts only from legal owners of them who are willing to part with the same and gift/donate the artefact(s) unconditionally to NCSM.
- ❖ A gift or donations may be accepted from any individual/organization, including a staff member.
  - The prospective donor (or vendor in case of purchase) must be issued a Receipt for Artefacts when artefacts are received by NCSM.
  - A Gift Agreement or invoice must be signed to prove the transfer of ownership if the artefact is accepted. If the artefact is rejected, the owner will be notified and given 90 days to take back the object/artefact.
- ❖ Artefacts can also be procured by exchanging duplicate artefacts with other govt. owned institutions/museums provided :
  - Both parties are in full agreement with the terms and conditions.
  - Both the acquisition and the disposal of artefacts are documented for the permanent records.
  - The removal of the artefact would not impair the collection in any functional way.
  - The removal will be approved through the de-accessioning process.
- ❖ NCSM will generally not procure artefacts by purchase unless it is specifically required for any gallery /exhibition for display through the Purchase Committee duly constituted by the Director and duly approved by the DG, NCSM.
- ❖ During acquisition, if any issue arises regarding ownership, quality, relevance etc. or if the donor attaches any condition which is antagonistic to NCSM's objectives and policies, NCSM should refrain from such collection.

- ❖ NCSM will not collect any artefact from grey market.
- ❖ Acquisitions are ultimately the responsibility of the concerned Curator.
- ❖ Before proceeding for any collection, the concerned Curator will obtain approval from the appropriate authority.
- ❖ The decision to acquire an artefact will be made by an Acquisition Committee of at least three people recommended by the Director and duly approved by the DG, NCSM, which must include the concerned Curator responsible for the collection and an external Subject Expert. The Director may appoint other staff as appropriate. The committee will not include any individual offering/donating an artefact to NCSM.
- ❖ The decision of the Acquisition Committee, duly recommended by the respective Directors, needs to be approved by DG, NCSM.
- ❖ In case of very important/sensitive artefact, the case may be referred to DG, NCSM for his decisions.
- ❖ In case, it is proposed by the concerned Curator to procure an artefact by purchase, it should be recommended by an Artefact Purchase Committee (different from Acquisition Committee), suitably constituted by DG, NCSM.
- ❖ Acquisitions of individual objects by purchase, as recommended by the Artefact Purchase Committee, shall be finally approved by DG, NCSM, subject to a ceiling amount to be fixed by GB. The acquisition of any item by purchase having a value more than that ceiling, shall be approved by GB, NCSM.
- ❖ All collections will be accessioned, preserved and conserved at zonal Headquarters and at CRTL.

## **Documentation, accuracy and maintenance**

- ❖ NCSM will document all such collected artefacts under its possession. NCSM will accurately and thoroughly document the collection to realize its value and significance, and to fulfill its mandate. Documentation is essential for collection development, research, preservation, and interpretation. Documentation is the responsibility of the zonal Director, or the Curator, to whom the Director assigns the responsibility.
- ❖ Documentation will include information ( written, electronic, audio visual, or graphic form) pertaining to the identity, locality, provenance, and transfer of legal title of artefacts in the collection, and other related information regarding significance, function, description, condition, and usage after acquisition.
- ❖ NCSM should preserve the digitally scanned copies of all archival documents such as books, letters etc.
- ❖ When being integrated into the collection, each artefact must be described in sufficient detail to enable the detection of any deterioration. Any change

in condition or treatment to an artefact will also be documented. (The Documentation format is given in Annexure I).

- ❖ Temporary or permanent change in the status of an artefact, such as an outgoing loan, de-accessioning, or transfer to another NCSM unit, transfer to any Museum/Institution by Exchange etc. must be thoroughly documented.
- ❖ NCSM will use accepted and consistent standards, methods, and procedures to document the collection. Documentation must be maintained in perpetuity.
- ❖ The Collection database will be available to all stakeholders through a portal.
- ❖ Legal documents dealing with acquisitions must be kept in hard-copy form, with a duplicate set stored in an off-site location.
- ❖ Professional software will be used to document the same and maintain a centralized database. Copies of electronic records stored in the Museum's Information Management System (MIMS) must be maintained and stored off-site. Documentation should be maintained in a secure and stable environment.

## **Preservation of Artefacts & Objects**

- ❖ NCSM will have a responsibility to conserve and preserve its collection in perpetuity. This includes artefacts in storage, on display, used in programs and research, on loan, and in transit.
- ❖ The preservation of the collection will be the direct responsibility of the concerned Curator, and other staff as appropriate.
- ❖ NCSM will take appropriate measures to conserve the artefact. For this purpose, NCSM will try to build a conservation laboratory with the help of experts.
- ❖ NCSM will try to build, over the years, a National Storehouse of S&T Artefacts.
- ❖ NCSM will collaborate with institutions like NRLC, Lucknow, Indian Museum, Kolkata, National Museum, New Delhi, and CSMVS, Mumbai for conservation of S&T artefacts.

## **Access to the Artefacts**

NCSM acknowledges that access to and use of the collection, by staff and the public, increases risk to artefacts and requires appropriate controls. Access to the collection is provided through exhibitions, programs, events, publications, collection records, research files, visual resources, and consultation with curatorial staff. The Right to Information (RTI) act and various heritage

protection legislations enacted by the Central and State Governments may restrict access to some information, including that related to expensive items, culturally sensitive objects, physically vulnerable objects and information pertaining to national security.

- ❖ Access by Staff: The level of staff access to the collection is determined by the Director, Curator, or designate. Staff and trainees who handle artefacts to be appropriately trained and supervised.
- ❖ Access by Public: NCSM will allow limited use of its collection by the public for study, research and any other kind of noncommercial purposes only (Commercial use will not be permitted). This may involve physical or intellectual access to the collection:
  - Physical: Physical access to artefacts is provided through galleries, exhibitions, programs and events. Other requests for physical access will be considered individually (e.g. loans, individual requests, and fee-for-use situations).
  - Digital: The artefacts in the collection may be digitized suitably and displayed on the website of NCSM & units for digital access to the public.
  - Intellectual: Intellectual access to the collection through records, images, and other information may be requested for publication, research, web sites, electronic media, display, promotional materials, personal use, media, films, and advertising. The documentation will be available through NCSM's website.

NCSM may charge a nominal fee for such access to its collection, even if it is for Educational/Non-commercial purpose.

## **Shifting of Artefacts from one place to another**

Artefacts may be shifted among NCSM units for a variety of reasons. Some of these relocations are short term and others are long term.

- ❖ When an artefact is moved for a short period, any documentation, including the accession or catalogue file, remains at the original site, a change of location must be recorded in the artefact record.
- ❖ When an artefact is moved for a long period, the accession or catalogue file goes to the destination site; the site of origin will maintain a copy of the file for audit purposes.

## **Loans**

Lending and borrowing of collections for research, public display in exhibitions and for education, are established norms in museums across the globe. In general,



collections are lent to institutions/organizations, but in special cases, also to distinguished individuals, who may need them for research purpose.

#### **Short term and Long term borrowing of Collections by NCSM:**

- ❖ NCSM may borrow artefacts for exhibition, study, or other purposes consistent with the mandate of the NCSM and for a specified time period.
- ❖ Loans may be made to NCSM by institutions and individuals.
- ❖ Before a loan transaction is completed NCSM must make a serious, diligent, and documented effort to establish ownership. The lender retains legal ownership of the artefact.
- ❖ A loan agreement, specifying intended use, must be completed for such material and the transaction must be approved by the concerned Director. All loans for traveling exhibitions must also be approved by the concerned Director.
- ❖ NCSM will provide the same standard of care and security for the artefacts and on loan to NCSM as it does for those in its collection. Treatment will not be undertaken on borrowed artefacts without prior written consent from the owner. Any treatments must be documented.
- ❖ In the unusual event that a borrowed object cannot be returned to the lender after a serious, diligent, and documented effort has been made, it should be treated as abandoned property with the prior permission of the competent authority.
- ❖ When NCSM will borrow artefacts and objects from another institution, it will follow the procedures prescribed by the lending institution.
- ❖ When NCSM will borrow artefacts and objects from individuals, or from institutions with no lending procedures or forms, it will follow the procedures of NCSM.
- ❖ Incoming loans must be fully documented. The documentation will include one copy of the signed loan form and information relating to value and condition. These records must be retained in perpetuity.

#### **Short term and Long term loans of Collections from NCSM to institutions/individuals:**

- ❖ NCSM will normally lend artefacts to institutions/organizations. Loans will not be normally made to individuals.
- ❖ The purpose of the loan must be consistent with the interests of NCSM, and not pose undue risk to the artefact.
- ❖ Loans will be made for a specified time period. Generally it will not be for more than six months. For exceptional cases, lending/borrowing duration may be extended with the approval of the appropriate authority.

- ❖ NCSM may impose penalty on the borrower if the Artefact is not returned to NCSM within stipulated time.
- ❖ Curator, or designate is responsible for ensuring that those who borrow or otherwise use material for any purpose are able to provide necessary care. Individuals within both the borrowing and lending institutions taking responsibility for the transaction must be authorized to do so.
- ❖ All loans from NCSM must be approved by the concerned Director or designate.
- ❖ A loan agreement, specifying intended use, must be completed between NCSM and the borrower for such material and the transaction must be approved by the Director.
- ❖ Rare and vulnerable items normally will not be loaned.
- ❖ The borrower will ensure that the artefacts borrowed from NCSM are not unlawfully copied (by any means) by the borrower, its employees or associates or any third party.
- ❖ Outgoing loans must be fully documented. The documentation will include one copy of the signed loan form and information relating to value and condition. These records must be retained in perpetuity.
- ❖ When an artefact is loaned out for a short period, any documentation, including the accession or catalogue file, remains at the respective NCSM unit, a change of location must be recorded in the artefact record.
- ❖ When an artefact is loaned out for a long period, the accession or catalogue file goes to the destination site; the site of origin will maintain a copy of the file for audit purposes.
- ❖ NCSM will reserve the right not to lend artefacts to an institution /organization/individual.
- ❖ NCSM may collect a refundable retention fee from the borrowers which will be refunded after satisfactory return of the artefact by the borrower. A loan agreement may also be signed through Notary.

## **Insurance**

NCSM will insure its collection and for loans to and from NCSM against theft, vandalism, fire, natural disaster etc. In case of loan from NCSM by an institution/individual, the borrower will bear the cost of such insurance. Additional insurance may be required under certain circumstances. Directors or designates are responsible for insuring the collection with nationalized insurance companies, acquiring additional coverage when necessary, and providing valuations for insurance purposes

## **De-Accessioning**

It is highly undesirable to remove accessioned artefacts from the collection. However, NCSM recognizes that there are circumstances when de-accessioning can refine the quality and improve the relevance of a museum's collection.

De-accessioning must be undertaken in accordance with the highest professional standards and ethics, and must not be influenced by arbitrary taste or individual preference. Reasons must be ethical, defensible, and objective. De-accessioning must be undertaken with great scrutiny, and requires institutional review and approval from the appropriate authority, to ensure a system of checks and balances.

The de-accessioned artefacts or specimens must be thoroughly documented along with the reasons for their de-accession and the processes involved. These records must be retained by NCSM.

Allowed reasons for de-accessioning:

- ❖ If the artefact is a physical hazard or health risk to staff or the public.
- ❖ If an artefact does not fall within NCSM's collection mandate and written collection development objectives.
- ❖ If NCSM is incapable of providing the conditions necessary for minimum curatorial care.
- ❖ If an artefact has deteriorated or is damaged to a point where it does not serve a useful purpose or poses a preservation threat to other elements of the collection or the gallery and/or museum building.
- ❖ If an artefact is over-representative of a particular type in the collection.
- ❖ If an artefact has a fraudulent, unethical, or illegal provenance.
- ❖ If an artefact has been misidentified, or is found to be a fake, forgery, or copy/duplicate with no definable purpose.

## **Manpower requirement**

- ❖ NCSM will develop a trained pool of skilled manpower for collection and conservation of artefacts.
- ❖ The aforesaid manpower will be trained in institutes like NRLC, Lucknow.
- ❖ NCSM will engage Research Scholars/Trainees with Museology background for documentation/conservation purpose.
- ❖ NCSM will allocate adequate budget outlay for the aforesaid purpose.
- ❖ Funds will also be sought under CSR activities from Companies/PSUs in the respective zones.

## **Policy Review**

*The Collection and Collection Management Policy* will be formally reviewed by NCSM every five years. Amendments may be required at other times and must be approved by the appropriate authority.

### **Recommended long term/short term plan of action for collection and preservation of scientific archaeology:**

- i. NCSM should immediately start documentation of artefacts already available in CRTL and complete the said documentation work within a realistic target date as decided by Director, CRTL.
- ii. NCSM should immediately contact NRLC, Lucknow, Indian Museum, Kolkata, National Museum, New Delhi, and CSMVS, Mumbai for necessary collaboration.
- iii. During the next one year, national level units of NCSM will identify possible sources of artefacts.
- iv. DG, NCSM will write to such identified sources (industries, research institutes, govt. departments, prominent individuals) requesting for donation of artefacts.
- v. DG, NCSM will constitute a permanent committee for acquisition/purchase of artefacts.
- vi. Each National level units will be given a collection target in their Annual Action Plan.
- vii. NCSM will engage at least two (2) Research Scholars who will report to the committee.
- viii. Budget provisions may be made during every financial Year accordingly.
- ix. Efforts should be directed to collect fund from CSR sources.
- x. NCSM will periodically organize Exhibitions with Objects in the Collection to arouse interest among the public.
- xi. It may be made mandatory that in future, all thematic galleries must have 20% of its exhibits supported with artefacts/objects.
- xii. NCSM should try to build a National Storehouse of S&T Artefacts.
- xiii. Action may be taken to develop a dedicated portal for NCSM's collections.

**ANNEXURE-I**

**Format for Documentation**

1.	Object ID	(Getty Information Institute system may be followed)
2.	Title	
3.	Source/Origin	
4.	Subject	
5..	Type of Object	
6..	Materials & Techniques	
7.	Measurements	
8.	Inscriptions & Markings	
9.	Distinguishing Features	
10.	Date or Period	
11.	Maker	
12.	Short Descriptions	
13.	Physical condition/Status of the object/artefact	
14.	Photographs	(Attach at least 3 photographs taken from three different directions)
15.	List of any other documents attached	