

Italian Restoration Chart of 1972

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Italian Restoration Chart of 1972

Memorandum n° 117 April 6, 1972, MINISTRY OF EDUCATION

The Ministry of Education, with the advice of the High Council of the Antiquities, in the attempt to reach uniform criteria for the management of Antiquities and Fine Arts, herewith issues new guidelines for the conservation of artistic Heritage.

Such regulations take the name of "The Restoration Chart 1972", are preceded by a short general report and followed by four addenda containing guidelines for specific applications:

Addendum A "the preservation and the restoration of antiquities"

Addendum B "the execution of architectural restorations"

Addendum C "the execution of restorations on painting and sculpture"

Addendum D "the protection of historical urban areas"

The documents included in the addenda are all integral parts to the chart.

Preamble to the Restoration Chart

The awareness that "art works," in their broadest definition, ranging from the urban fabric and architectural monuments to painting, sculpture, archaeological finds and figurative expressions of the popular cultures, must be protected in an organic and equal level, has led to the elaboration of these technical-legal guidelines. These define the boundaries of the process understood as "conservation," both in the process of preservation and in the process of actual restoration of the objects.

It constitutes a point of pride for Italian culture that, as early as 1931, at the end of a period of restoration practice characterized by arbitrary reconstructive restorations, a document called the Restoration Chart was created. Though its reach was originally limited to architectural monuments, it was easy to expand its scope to become a guideline for every restoration, including pictorial and sculptural artwork.

Unfortunately, the "Restoration Chart" never had the weight of a law. Later, a greater awareness to the dangers of exposing art to restoration done without precise technical criteria led in 1938 to the creation the Istituto Centrale per il Restauro and of a ministerial commission with the task of elaborating unified guidelines that would embrace all the branches of figurative arts and archaeology. Though these guidelines were golden, again they did not attain the status of law, but remained merely internal guidelines for the government administration. Neither the theories nor the methodologies developed at the Istituto Centrale per il Restauro were implemented on all of the nation's art work restorations.

The failure to give legal status of such regulation did not take long to reveal its shortcomings. It was ineffectual in front of the arbitrary restoration practices of the past (in particular of demolitions and alterations of archaeological areas). It was also ineffectual when the understandable but no less blameworthy postwar emotion led to heavy-handed restoration and reconstruction of monuments damaged or destroyed during the war. These were often done without the caution and deliberation that had been the virtue of Italian restoration practices.

No less damage was caused by the demands of a misunderstood modernity and a crude urban planning process, which in order to enlarge cities and allowing traffic to flow smoothly, failed to respect a

holistic view of the urban fabric. An important feature of the Restoration Chart is its definition of historic districts beyond the narrow boundaries of the single monument.

Regarding the more circumscribed and manageable field of pictorial and sculptural restoration, despite the lack of legal status the guidelines fostered, a greater caution is therefore concluded, thus avoiding serious damages by practices such as aggressive cleanings, as they have unfortunately been practiced in some foreign countries. The necessity for standardized restoration methods became even more obvious when dealing with privately owned artwork, although no less valuable than the cultural heritage owned by public institutions, was handled with less consistent practices.

Restoration Chart of 1972

Art. 1, - All the works of art of every age, in the widest meaning of the word, ranging from: architectural monuments to painting and sculpture (even if in fragments), to Paleolithic artifacts, figurative expressions of the popular cultures, and to contemporary art, whether owned by individual persons or institutions, in matter of preservation and restoration--all will be subject to the present guidelines taking the name of "Restoration Chart of 1972."

Art. 2, - In addition to items listed in Art. 1, the present guidelines will apply to the following categories of objects to assure their preservation and restoration: building complexes of monumental, historical, or environmental interest, in particular historical urban areas; art collections; historic furnishings and interior decors preserved in their traditional arrangement; gardens and parks of particular importance.

Art. 3, - In addition to items listed in Art. 1 and 2, the present guidelines will also apply to the following items to assure their preservation and the restoration: ancient ruins and archaeological finds whether found on land or underwater.

Art. 4, - It is meant by "preservation" any conservative provision that does not involve any direct action on the material of the artwork. It is meant by "restoration" any action on the material of artwork in order to maintain its material integrity and facilitate the reading and the transmission to the future in their entirety. This applies to artworks and other objects defined in the previous articles.

Art. 5, - All overseeing government agencies and responsible Institutions in the matter of conservation of the historical-artistic and cultural heritage must prepare a yearly program listing all work of preservation, restoration, underground or under water archaeology, to be done on behalf of the State, other institutions or private individuals. It must be presented to and approved by the Ministry of Education with the approval by High Council of the Antiquities and Fine Arts. As part of this program, any restoration works done to items defined by Article 1 will be described and justified in a technical report and proposal which will describe the conservative history, the existing conditions, the planned restoration work and the budget necessary to complete the work. The technical report and proposal must be approved beforehand by the Ministry of Education. In special cases of very important works, or ones where questions have arisen, it must be approved by High Council of the Antiquities and Fine Arts.

Art. 6, - Regarding the preservation and restoration procedures set by Art. 4 on artwork as defined per Art. 1, 2 and 3 the following actions will be forbidden without exception:

- 1) completions of unfinished work in style, analogical, in simplified form, or even if there are graphic or plastic documentation illustrating the intended form of the completed work;
- 2) removals or demolitions that erase from the artwork traces left by its passage through time, unless these features are of limited scope and incongruous or disfiguring in relation to the historical values of the work or if they are past completions in style that counterfeit the nature of the work;
- 3) removal, reconstruction or transferal to locations other than the original one, unless it is deemed necessary for conservation reasons;

4) alteration of the surrounding accessories or environmental conditions in which the artwork has arrived to our time, such as the monumental or environment settings, the furnishings, the gardens, the parks, etc.;

5) alteration or removal of patinas.

Art. 7, - To the same ends as of Art. 6 and for all works to which Art. 1, 2, and 3 applies, the following practices are acceptable:

1) addition of accessory parts that have a structural function and reintegration* of small historically verified portions. Such interventions must be done in a way that differentiates clearly the original portion of the artwork from the new addition either by clearly marking the outline of the reintegration or by using material that is concordant yet sufficiently different to be clearly distinguishable by the naked eye, in particular at the points of connection between the old and the new. Moreover, where possible, all reintegration should be dated and signed;

2) Cleanings of paintings and polychrome sculptures, as long as it does not reach the surface of the color and respects the patina and ancient varnishes and, as with all other types of work, should never reach the raw material that makes up the art;

3) Anastilosis*, only when carefully documented and by reconstructing missing sections with techniques clearly discernible to the naked eye such as using lighter or neutral materials, setting them at a different level from the original parts, or leaving in sight the original support, however never reconstructing ex novo missing “figurative”* sections and inserting important features that will alter the figurative nature of the work;

4) modifications and new insertions in the inner structure, underlayments or structural supports with the purpose of conservation and static consolidations, provided that at the completion of the restoration work, there are no chromatic alterations or other changes in the appearance of surface mater;

5) construction of a new setting or relocation of artwork when the original or traditional setting no longer exists, or when the conservation conditions demand the relocation.

Art. 8, - Any work done on the art or to its surroundings as defined in Art. 4 must be executed in such way and with such techniques and materials that will not obstruct or prevent preservation or restoration work in the future. Moreover, every intervention on the artwork must be preceded by a written report that documents the artwork and explains the motivations for the work to be done (last section Art. 5). During the course of the work a journal must be kept and will be followed by a final report. This will contain photographic documentation showing the conditions before, during and after the work was completed. They will include documentation of all scientific tests and research done with the aid of such disciplines as chemistry, physics, microbiology and other sciences. A copy of these reports will be kept in the archives of the competent Soprintendenza* and one will be sent to the Istituto Centrale Per il Restauro. In the case of cleanings, a small sample area at the margins of the work will be kept in the original condition, while in the case of removal of additions, the parts removed will have to be conserved or be documented in a special archives-warehouse of the competent Soprintendenza.

Art. 9, - The use of new procedures and materials for restoration, instead of those currently used or permitted, will have to be authorized by the Ministry of Education, with the explained consensus of Istituto Centrale del Restauro. This institution’s role will be to actively advise the same Ministry and to discourage the use of antiquated, damaging or untested materials and procedures, to suggest new ones, or to determine the need of outside resources in terms equipment and specialists not available with in their organizations.

Art. 10, - Measures taken to prevent damage to the artworks (as per Art.1, 2, and 3) from pollution and atmospheric, thermal and hygrometric variations, will be done in a manner not to alter considerably the visual perception of the material surfaces and the colors, nor require substantial and permanent modifications to the environment in which the artworks historically has been transmitted. In cases where modifications of the sort are indispensable for the conservation, they must be made in a manner to avoid any doubt on the time when they were executed and be the least conspicuous.

Art. 11, - The specific methods of the restoration procedure to be used on architectural monuments, paintings, sculptures, historical areas and archaeological excavations, are specified in the addenda A, B, C, and D of this document.

Art. 12, - In cases where conflicting opinions arise regarding regulating authority or technical matters, the Ministry will make a decision after having received reports by the Sovraintendente or the heads of relevant institutes, and having consulted the Consiglio Superiore delle Antichità e Belle Arti.

Addendum A - Instructions for the Preservation and the Restoration of Antiquities

Beyond the guidelines contained in the articles of the Restoration Chart, it is necessary to keep in mind the special requirements for preservation of underground archaeological areas the conservation and the restoration of artifacts during land and underwater archaeological searches (per Art. 3).

The issue of primary importance in the preservation of the underground archaeological areas is the need to coordinate the laws and regulations regarding eminent domain, land use regulations and the creation of archaeological preserves and parks, with other site specific measures to be taken.

An overriding concern will be the accurate identification of the archaeological sites. This will require the collection of all data available on the surface, such as scattered ceramic shards, documentation of structures emerging above the ground using aerial photography and also the use of other survey techniques (electric, electromagnetic, etc.). A complete understanding of the site's archaeological nature will allow for a better formulation of preservation guidelines, land use restrictions, drawing of land use master plans, and surveillance of the site in situations of agricultural uses or building construction.

In order to preserve underwater archaeological heritage (in accordance with the laws and binding regulations) and in order to prevent the indiscriminate and unauthorized tampering of ancient shipwrecks and their cargo, of submerged ruins and sunken sculptures, the following measure must be taken: the systematic exploration of the Italian coasts by specialized staff to create an accurate "Forma Maris" (coastal sea map) identifying the location of shipwrecks and submerged monuments. This is also in order to provide better programming for underwater scientific searches.

The recovery of wrecks of ancient boats will not be done before having predisposed the facilities and equipment necessary to shelter materials recovered from the sea bottom and carryout the required treatments, particularly in the case of wood parts, which need long extensive washings and soakings in special consolidating substances while in spaces with special air and temperature controls.

The systems of raising and recovery of sunken boats will be designed to meet the specific needs of conservation of each wreck and keeping in mind experiences acquired internationally in the last few decades. This must be also done in land based archaeological explorations - where the special requirements of conservation and restoration of artifacts will have to be tailored to the type of artifacts and component materials that are being excavated. For example, for the ceramic materials and amphorae, all measures will be taken to help identify traces of the content, a precious data for the study of history of commerce and daily life in antiquity. Particular attention will also be given to documentation and fixating of inscriptions painted on the body of the amphorae.

During land based archaeological explorations, the documentation and recovery guidelines fall more in the framework of excavation methodology. With regards to restoration, the right resources must be available during the excavation in order to guarantee the immediate conservation of the most perishable artifacts, and later for the final preservation and conservation operation.

Regarding finds of dissolved or scattered elements, decorations in stucco, painting, mosaic or opus sectile*, it is necessary, before and during their removal, to hold them together with plaster, gauzes and adhesive, so as to facilitate the resetting and restoration in laboratory.

In the recovery of glass it is advisable to do no cleaning during the excavation, due to the facility with which they are subject to disintegrate.

Regarding ceramics and terracotta, it is indispensable not to damage delicate painting and varnishes by washings or cleanings,

Special care must be taken in collecting objects or fragments of metal, especially if it oxidizes. Besides resorting to consolidation systems, measures must be taken to provide adequate supports. Special attention must be given to fragments and traces of woven fabric.

It's also part of well-established practice, particularly in Pompeian archaeology, to make plaster castings of negative cavities left by plants and perishable organic materials.

In order to implement these instructions, it is necessary that, during the course of the excavations, restorers be readily available to carry out the first measures of recovery and consolidation, with special attention given to the restoration of artwork destined to remain in its place, or to be brought back after the separation to their original location, in particular when dealing with paintings and mosaics.

There has been successful experimentation with new types of supports, frames and adhesives for artwork and their compatibility to different climatic, atmospheric and hygrometric conditions. This experience allows paintings (*mural paintings*)* to be reinstalled in covered areas of ancient buildings avoiding directed contact with the wall, facilitating the reinstallation and ensuring their conservation. However, reintegration of the lacunae with colorings similar to that of the raw plaster must be avoided. Also to be avoided is the application of waxes or varnishes in order to sharpen the colors because they are always subject to alteration, sufficing a careful cleaning of the original surface.

Regarding mosaics, it is preferable, when possible, to be reinstalled in the building they come from, of which they constitute an integral part of the decoration. In such cases, after the strappo* with the modern methods it can now be done on large surfaces without cuts - the best support system is a cement base with stainless steel reinforcing, resistant to the atmospheric agents. For the mosaics destined to display in a museum, the "sandwich" support* (a light, resistant and manageable material) is now widely used.

Particular attention must be given to the preservation of interior decorations with mural paintings from damage deriving from climatic conditions in place, such as the prehistoric caves, tombs, small ambient. In these cases for the best conservation of paintings it is necessary to keep two physical conditions at a constant state: air humidity and temperature. Such factors can easily be altered by external and extraneous factors to the space holding the artwork, especially from crowding by visitors, excessive lighting, and strong external atmospheric fluctuations. It is necessary to carefully study these problems, one of which being the control of visitor admission by means of "air locked" vestibules separating the exterior atmosphere from the old preserved space. Such precautions are already applied in the access to prehistoric painted monuments in France and Spain, and would be desirable at many of our monuments such as the tombs in Tarquinia.

For the restoration of archaeological monuments, besides the general guidelines contained in the Carta del Restauro and in the architectural restorations guidelines, it will be necessary to consider certain requirements when dealing with ancient buildings. When doing a complete restoration of a monument, an historical study must be done, which includes test excavations in order to study the foundations. Such work must be conducted with a stratigraphic method that can reveal precious information on the history and phases of construction of the building.

For restoring veneer masonry such as opus incertum*, quasi reticulatum, reticulatum and vittatum (to differentiate the new material from the original) if the same type and quality of tuff or tuff blocks are be used, it must be placed on a slightly sunk plane, while in the case of brick veneer, the new bricks will have a chiseled or grooved surface.

For the restoration of masonry in square blocks, the system to recreate the blocks in the ancient measures using flakes of the same material cemented with mortar mixed in surface with powder of the same material in order to obtain a chromatic dual tone has been favorably experienced as an alternative to the method of recessing the modern reintegration surface. It can be useful to use a recessed mortar joint along the perimeter of the restored wall area, or to insert slightly different materials. These can be further differentiated by a dissimilar surface treatment, such as chiseling. Finally, it will be desirable to

demarcate every restored zone by placing marker plates with the dates, initials or other special designations.

Surfaces made with cement mixed with sand of the same material as the monument to be restored can be used in the integration of fragments of ancient limestone, marble or tuff columns, after carefully studying and considering the appropriate coloring and roughness to the surface in relation to the original materials. In the area of Rome, white marble can be integrated with travertine or limestone: this approach has already been experimented with successfully (restoration of the arch of Titus by Valadier). In old monuments, particularly in those of archaic or classic era, placing side-by-side clashing or anachronistic materials must be avoided so as not to create strident and offensive chromatic results. It is preferable to use the same materials of the monument with some modifications to differentiate this new material from the original.

A particular problem of archaeological monuments is constituted by the capping of ruined walls. First of all the existing jagged line of the ruins must be maintained. Experience indicates that the laying of a layer of cocchiopesto mortar gives the best results from an aesthetic point of view and for resistance to atmospheric agents. With regards to the general problem of the consolidation of architectural materials and of exterior sculptures, experimentations with methods not sufficiently proven which could bring irreparable damages must be avoided. The methods of restoration and conservation of archaeological monuments must be chosen considering also the many different climactic zones found in Italy.

Addendum B - Instructions for the Execution of Architectural Restorations.

It is to be assumed that work of timely maintenance assures long life to monuments, avoiding the acceleration of damages. It is recommended that greater attention is paid to continuous surveillance of the buildings so conservative measures can be applied before restoration work of larger magnitude becomes necessary. Moreover, it is important to keep all restoration operations under a conservational mode, respecting historical additions and avoiding new additions or reconstructions.

In order to always assure the survival of monuments, it is important to carefully consider the compatibility of the new uses of the old buildings to the historical-artistic nature and content of the monument.

The adaptation work will have to be kept to a minimum, conserving scrupulously the external shapes and avoiding substantial alterations to the building's typology, structure, construction systems and the inner circulation. The architectural restoration plan and design must be preceded by a careful study of the monument that takes into consideration regional context, the urban fabric, building typology, formal quality and visual prominence, structural systems and characters, etc., in relation to the original building as well as to the future additions or modifications.

This study will include research of the following aspects of the building: bibliography, iconography and archival records, etc., in order to acquire every possible historical data. The design project will be based on a complete and accurate set of measured drawings, a photographic survey, a study of the regulating patterns, proportional systems, and will also include a separate, precise study for the structural conditions of the building.

The execution of the restoration of monuments is a very delicate operation of great responsibility which must to be entrusted to specialized contractors. The work should be paid for "on a fixed price basis", instead of an itemized price or "by the piece basis." The restoration work must be continuously and carefully supervised in order to guarantee the good execution and allow quick response in case of unexpected conditions or if structural problems are found. This is also important in order to avoid damage or destruction to elements not documented in the survey that may emerge during demolition work, which are useful to the understanding or the restoration of the building. In particular, the site supervisor must ascertain the existence or not of any traces of decorations before cleaning off or removing paints or plasters, and what were the original textures and colors of the walls and vaults.

The fundamental requirement of the restoration is to respect and preserve the authenticity of the component elements. This principal must guide and condition the operating choices. For example, in the case of out plumb masonry, even if practical necessities suggest the demolition and the reconstruction, the possibility of straitening the wall without replacing the original masonries must first

be considered and tried. The substitution of damaged stones will happen only in the most extreme conditions.

The substitutions and eventual integrations* of wall decorations, where necessary and always in the most circumscribed manner, will always have to be distinguishable from the original elements, differentiating the new materials or surfaces. But it is generally preferable to operate along the perimeter of the integration with a clear and persistent continuous contour line to define the area, using small strips of metal, a continuous line of tile fragment or by making a visible groove on the surface, whichever is most appropriate in each situation. The consolidation of stones or other materials will require test trials beforehand using proven methods that have been accepted by the Instituto Centrale per il Restauro.

Every precaution will have to be adopted in order to avoid further deterioration of the existing conditions; therefore all restoration work will have to include measures to eliminate the causes of the damages. For example, if a stone is cracked by rusting iron clips or bolts that expand as they rust, it is desirable to disassemble the offending part to replace the iron with bronze or copper or, even better, with stainless steel that has the advantage of not staining the stones.

Stone sculptures located outdoors or in public squares must be carefully supervised and, whenever possible, using the above mentioned tested method, consolidated and protected (at times even on a seasonal basis). In cases where it is impossible to preserve the sculptures outdoors they should be transferred indoors. For the good conservation of bronze or stone sculptures in fountains, it is necessary to decalcify the water, eliminating the limestone incrustations and the resulting harmful periodic cleanings that requires.

The patina of the stones must be conserved for obvious historical, aesthetic and also technical reasons, in as much as it has a general protective function, as is proven by the corrosion that can take place on surfaces where the patina is missing. The matter that accumulates on the stone can be removed: detritus, dust, soot, bird guano, etc. - using only brushes with vegetable bristles or air jets at moderate pressure. Metallic brushes and scrapers must be avoided. Likewise, generally to be excluded are: pressurized jets of steam, water or sand blasting. It is even advisable to avoid any form of washing.

Addendum C - Instructions for the Execution of Pictorial and Sculptural Restorations

Preliminary Operations

The first thing done, before any work of restoration is executed, whether pictorial or sculptural, is a survey of the state of conservation. Such survey must include the study of the stratigraphy of the artwork, assessment of how many material layers the work is composed, determination if they are original or later additions and their approximate age. A written report will be an integral part of the program along with the restoration journal. Subsequently the photographic documentation will be made of the conditions before the restoration. These photographs will be made in natural light and, if appropriate, monochromatic light, simple ultraviolet beams, or filtered and infrared light. It is always advisable to execute soft beam x-rays, even in cases that do not reveal any superimposition of images to the naked eye. When dealing with mobile paintings*, the rear of the painting must also be photographed. All the photographs will be logged into the restoration journal. If the photographic documentations reveal any problematic conditions, these will go fully reported and documented along with all the issues they raise.

After the photographic documentation is completed, in those cases where layering exist, or where the preparation method needs to be determined, a number of small paint samples must be taken from less significant areas of the artwork. They must include all the layers from the surface to the support, in order to reveal a complete stratigraphic section. The precise location from where the samples were removed needs to be marked on photographs taken with natural light and annotated in the restoration journal with references to the photographs.

When dealing with paintings on walls, stone, terracotta or other immovable supports, it will be necessary to examine the conditions of the support for problems with humidity and, if such exist, understand the source: infiltration, condensation or capillarity. To accomplish these tasks samples of

plaster, mortar and rubble cores must be taken to measure the extent of the problem; if fungi are observed or suspected microbiological analysis will be made.

The main task with sculptures, when not dealing with painted or varnished sculptures, will be assessing the state of conservation of the materials of which they are sculpted and to investigate this by means of x-rays. Such measures must be taken in order to carry out restoration.

The preliminary investigation will orient the restoration in the right direction, whether it be a simple cleaning, consolidation, removal of over paintings, relocation or reassembly of painting fragments. The most important process is to determine which technique was employed to create the painting. This can't always be established by non invasive scientific techniques and therefore caution is necessary against making generic empirical assumptions about techniques used in a painting in order to carefully carry out scientific testing of all material to be used in the restoration.

The cleaning can be executed mainly in two ways: with mechanical or chemical means. Methods that obstruct the visibility or the direct access to the matter of the painting while being cleaned are to be excluded. Mechanical means, such as scalpels, will be used with the control of the magnifying instruments, though not necessarily always under the lens. Chemical means, solvents, must be of such a nature that can be immediately neutralized, moreover they must evaporate easily so as not to remain fixed to the painting layers.

If the stratigraphic sections indicate the existence of a varnish layer, the solvents must be tested before using them in order ensure they don't damage the original varnish of the painting.

Before proceeding with the cleaning, regardless of which method is being used, it is necessary to check the structural condition of the painting's support and pictorial layer. Raised or tenuously attached parts of the pictorial layer must be treated with a temporary fixative. The temporary fixing methods will be established case by case. In some situations, when the separation problem is very localized, it will be limited to that small area. In other situations the process will be applied to the entire painting using uniform heat, as long as it will not cause damage to any part of the painting. Whichever temporary fixation method is used, all traces of the fixation materials must be removed from the pictorial surface. To this purpose, after the consolidation of the pictorial layer, a thorough examination with a magnifying instrument will be necessary.

When a complete fixating layer, "velatura," of the painting is needed to work on the support, it is absolutely necessary that it be done after the pictorial layer has been consolidated, and that the "velatura" be attached with an easily soluble adhesive different from the one employed in the attachment of the consolidation of the pictorial layer.

If the wood support of the painting is attacked by wood worms, termites, etc., the painting must be treated with a suitable pesticide that will kill the insects without damaging the painting. Soaking in liquid pesticide is to be avoided.

Regarding mobile paintings on wood board, if the conditions of the support, the base coat, or both, require the transfer of the image to a new support and the substitution of the base coat, it will be necessary that the base coat be removed entirely by hand with a scalpel since thinning it will not be sufficient. This does not apply if only the support needs replacing and the base coat is in good condition. Where possible, the conservation, of the base coat is always advisable in order to maintain the pictorial surface in its original shape. The substitution of the wood support, if absolutely necessary, should not be done to a new wood support with the same expansion coefficients as the original one. The adhesives used on the new support holding the canvas of the transferred painting should be easily soluble without causing damage to either the pictorial layer or to the adhesive that binds the pictorial layers to the transport canvas.

It must be kept in mind that, unless it is indispensable, it is always better not to alter old stabilized wood for the aesthetic enjoyment of the painting. In case the original wood support is in good state but needs straightening, reinforcing or new parchettatura* it is necessary to follow precise technical rules that respect the orientation of the wood fibers.

Samples of the wood must be taken to identify the botanical species and establish its expansion coefficients. Any additions of wood will be done with seasoned wood, in small segments, so as to be dimensionally stable in relation to the old support of which it will become part. The parchettatura, with whichever material it is made, must allow the natural movements of the wood to which it is attached.

In the case of the paintings on canvas, the transfer must be done with the gradual and controlled destruction of the ruined canvas. For the base coat (or rendering) the same process that was described for the painting on wood board will be used. In cases of painting without a base coat, in which a very liquid color was applied directly on the support (like in sketches by Rubens), the transfer will not be possible.

However the process of recanvasing a painting is done, it must avoid excessive compression and temperatures on the pictorial layer. Applying a canvas painting to a rigid support (marouflage) must absolutely never be done. The replacement stretchers should be designed to assure the correct tension and to possibly readjust automatically, as the canvas expands due to variations in air humidity.

Measures to Consider in the Restorations of Wall Paintings.

For mobile painting the determination of technique can lead to an uncertain and unsolvable search because of the generic quality of paint categories: tempera, oil, encaustic, aquarelle or pastel; for mural paintings, executed on buildings or directly on marble, stone etc. The definition of the media is no less problematic (like for walls paintings of classic age). It is thus indispensable, before proceeding with operations of cleaning, fixing, strappo or stacco, and the ensuing application of transfer fabrics or protective gauzes, to assess whether the solvent used in these processes will not damage the medium of the painting being restored. Moreover, if dealing with temperas, and specifically for the tempera applied to frescoes where certain colors could not be applied with the fresco technique, a preventive application of fixative is indispensable were these colors have, to a greater or lesser degree, turned to dust. Special care must be taken while dusting these areas to remove the least possible amount the original color. Regarding the fixing process of these colors, it necessary to use fixatives that are not organic, transform the original tones the least possible and do not become irreversible with time.

Dust must be examined in order to see if it contains moulds and what the causes are for their formations. If these causes can be determined and an appropriate fungicide is found, it will be necessary to ascertain that it will not damage the painting and can easily be removed afterwards.

When it is necessary to remove a mural painting from its support, between the methods to choose (with equal probability of success) the strappo is preferable¹ because it offers the possibility of recovering the preparatory sinopia, (in the case of frescos) and also frees the pictorial layer from the residues of a disintegrating plaster base.

Regarding the support on which relocated the pictorial layer, it is necessary that it offers the maximum guarantees of stability, inertia and neutrality (absence of ph). It is also necessary that it can be constructed in the same dimensions as the painting, without intermediate sutures which would unavoidably stand out with the passing of the time on the pictorial surface. The adhesive to attach the transfer canvas to the pictorial layer should be of such a nature as to dissolve easily with solvents that do not damage the painting layer. In case it is decided to transfer the painting to a reinforced canvas, it must be designed in way to have the maximum stability, elasticity and automatically establishing constant tension should this vary for climatic or other reasons.

When detaching mosaics, if the surfaces are not completely flat it will be necessary to make sure that the tesserae is fixed in their existing position before removal so that when they are reattached the original position and surface characteristics will be maintained. Before applying the transfer canvas and armature needed for detaching the mosaic, it must be consolidated and its state of conservation must be ensured. Particular care should to be given to conserving the tectonic characteristics of the surface.

Considerations to be taken During the Execution of Restorations of Sculptural Works.

After determining the materials and technique used in the sculptures (marble, stone, stucco, papier-mâché, terracotta, glassed terracotta, unfired clay not painted, painted unfired clay, etc.), where there are no painted surfaces and a cleaning is necessary, washing is to be excluded, even if it does not cause

damage to the surface or patina. In those cases of sculptures coming from excavation or found in water (sea, rivers etc.) which have incrustations, these will preferably be removed by mechanical means, or using solvents that do not damage the matter of the sculpture or remain attached to the object.

In case of wood sculptures in degraded state, the use of fixatives will have to be subordinated to conserving the original appearance of the wood matter. If the wood is infested from woodworm, termites, etc., it will be necessary to treat it with suitable gaseous pesticides. Soaking with any liquids, even in the absence of painted parts, could alter the appearance of the wood and must be avoided. In the case of sculptures reduced to fragments, the use of screws or supports, etc., will be conditioned by the necessity to use non-oxidizing metals. For bronze objects, great care must be given for the conservation of the noble patina (atacamite, malachite, etc.), unless there is an active process of corrosion under it.

The General Guidelines for the Location of Restored Works of Art.

Restored art work will never be reinstalled in the original location if the damage was caused by environmental conditions found at such location, unless corrective actions (humidity prevention, climate controls, etc.) that will guarantee the safekeeping and conservation of the artwork have taken place.

Addendum D - Instructions for the protection of the "Historical Areas".

To determine the location of Historical Areas it is necessary to consider not only the historic urban "centers" but also, in a more generalized manner, all areas of human settlement whose structures (whether unitary, fragmented, partially transformed in time, constituted in the past or more recently) have value as testimony of history or individually for their particular architectural or urban quality.

The historical character must be related to the interest that such settlements offer as evidence of past civilization and of urban culture, independently from their intrinsic artistic or formal qualities or any individual environmental aspects, that can enrich or exalt its value, since not only the architecture but also the urban structure possesses by itself value and meaning.

The restoration in the Historical Urban Areas should aim to guarantee, with ordinary and extraordinary means, the permanence in time of the wealth of elements that make up these urban structures. The restoration should not be limited to operations meant only to conserve the formal characters of single architectural works or single environments, but should include the substantial conservation of all the characteristics of the urban organism and all the elements that define it. To adequately preserve the urban organism in its continuity in time and its role in modern life, it is necessary that the planning process view the Historic Urban Centers in its broadest urban and regional context, so that future developments are compatible with their preservation and recovery.

Through such process (by means of the urban design and management) it will be possible to shape a new city structure in which functions not compatible with the conservation of the historic core will be located in other more compatible areas. Also, it will be necessary to consider the preservation of the broad regional and environmental context; specially where its relation to urban structures has gained historical meaning (for example, the crown of hills around Florence, the Venetian lagoon, the Roman Centuriation of the Po Valley, the Trulli district in Puglia, etc.).

The components that must be considered, through which the preservation of the urban structure is to be implemented, are: building structures, the component external spaces (roads, public squares, etc.), the open spaces belonging to buildings (courtyards, garden, open space, etc.), and other meaningful structures (walls, city gates, cliffs, etc.), and last but not least, natural features that accompany, characterize or accentuate the urban landscape (natural contours, water course, singular geomorphic features, etc.). The component buildings that make up the urban fabric must be preserved not only in its formal architectural aspects but also in their typological aspects since their usage of is an important historical element that has shaped and characterized them over time.

Every restoration must be preceded by a critical historic analysis, with the objective of assessing all important features from an urban design, architecture, environment, typology, constructive, etc., aspect. The results of this analysis are not meant to set differing standards of operation (because those must be

the same throughout the historic core) but to determine the different degrees of conservative action that must be taken on the urban fabric as well as on the individual building.

To this purpose it is necessary to specify that by conservative reorganization it is meant, first of all, conserving of the street and block fabric in a generalized manner (maintenance and conservation of the street mesh, the perimeter of city blocks, etc.), and, moreover, the conservation of the urban characters that involve the integral preservation of the important monumental and natural features that characterize the historic urban environment. Other elements or single buildings can be adapted or transformed to meet the requirements of modern life, and in exceptional cases even total substitutions can be considered, but only with the condition that it be compatible with the conservation of the general character of the historical area.

The main types of interventions at an urban level are:

a) Urban Restructuring, by which is meant the restructuring of the relationship between the historic center and regional territory of which it is part. Of particular importance is analyzing the role played by the historical center in relation to the surrounding region both in history and at present times. Special attention should be given to the relation between the existing structure of the historic areas and modern urban development, principally the functional aspect of new commercial districts. The urban restructuring should aim at freeing the historic center of those incompatible activities that create situations of chaos and deterioration.

b) Road Rearrangement. Road and Traffic patterns in the historic areas must be analyzed and redesigned to eliminate pathological traffic conditions in the historic centers, with the objective of bringing back to these areas activities that are compatible with the historic structures. It should also be taken in consideration the development of public facilities and services that are specifically fashioned to well serve the needs of life in the historic centers.

c) Refashion of the Streetscape and Furniture, including streets, public squares and all other existing open spaces (courtyards, spaces inner, gardens, etc.), in order to create of one homogenous connection between buildings and open space.

The main types of interventions at the building level are:

a) Structural and hygienic renovation of the buildings, tending to the maintenance of the existing structure and a balanced use of it. Such restorations must follow established guidelines for restoration. This type of work requires an approach that respects the typological structural and functional aspects of the building avoiding any transformation that will change its character.

b) Renovations to the interior of the buildings will be allowed only where it is indispensable to the ends of the maintaining the building in use. In this type of work it is fundamental to respect the typological and constructive qualities of the buildings, forbidding all those that alter the character of the building, for example the internal gutting of the structure or the introduction of functions that excessively deform its typological-constructive nature.

The Legal Administrative Instruments used to carry out the above policies will be essentially:

The City General Master Plans, when restructuring the relation between the historical areas with the rest of the city and surrounding territory.

Historic District Renovation Master Plans.

Executive Zone Plans, for blocks or related urban structures.

Notes and glossary

* (*comment in Italics*) Comments by translators

Strappo - method of removing pictorial layer from mural paintings or tesserae from

mosaics when the pictorial layer is torn away from its support

Stacco - method of removing pictorial layer from mural paintings or tesserae from mosaics when the pictorial layer is removed along with the supporting material

Sandwich support - fiberglass panel with aluminum honey comb core

Opus Sectile - Mosaic done with different size stones

Soprintendenza - (Italian) Supervising government agency

Soprintendente - (Italian) Head of a sovrintendenza

Reintegration or Integrations - (Engl adapt. of Italian) Retouching, refilling or visually linking of lacunae or missing section of artwork

Lacuna (lat. lake, pit, cavern) missing section of artwork normally used in context to two dimensional artwork

Anastilosis - (Lat. / English) Reconstruction of a building or artwork from fragments

Istituto Centrale per il Restauro (Now-Istituto Superiore per la Conservazione ed il Restauro) Main Italian government restoration school and research center (Rome)

Consiglio Superiore delle Antichità e Belle Arti - Government advisory council for artistic and archeological matters.

Cocciopesto - Cement or mortar made by mixing water, lime, sand and ground ceramic bricks or tiles

Parchettatura – Joining and stiffening structure for a painting’s wood supports it consists of a grid of sliding boards attached to the back of the wood boards

1 - This practice is no longer considered desirable.