



*Protecting, preserving and promoting world motoring heritage
Official Partner of UNESCO*

CHARTER OF TURIN

Handbook

**CHARTER OF TURIN
HANDBOOK**

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Printed by: GRAF ART - Officine Grafiche Artistiche S.r.l
Venaria Reale (to)

Editorial coordination by ASI Service S.r.l. - www.asiservice.it.

Printed in the month of November 2017.
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CHARTER OF TURIN

INTRODUCTION

The *Fédération Internationale des Véhicules Anciens* (FIVA) is the world federation of historic vehicle clubs. It supports and encourages the preservation and responsible use of historic vehicles as an important part of our technical and cultural heritage. Historic vehicles are significant in their role as means of transport, as witnesses to their historic origins, the technical state of the art of their period and last but not least for their impact on society. The scope of this Charter includes mechanically propelled road and non-rail land vehicles. A vehicle is considered to be historic once it complies with the Charter and the applicable FIVA definitions. The Charter may also include buildings and related artefacts to historic vehicles and their period of operation, such as factories, fuel stations, roads or racetracks. For many years the owners of historic vehicles, the curators of historic vehicle collections and the restorers of historic vehicles have been very successful at salvaging, preserving and keeping historic vehicles in operation. This Charter was approved by FIVA to provide guidance for decisions and treatments in relation to historic vehicles. The Turin Charter unites the guiding principles for the use, upkeep, conservation, restoration and repair of historic vehicles. This Charter is based on and inspired by UNESCO's Venice Charter (1964), the Barcelona Charter (2003, historic ships) and the Riga Charter (2005, historic rail vehicles).

Art. 1

- AIM -

The aim of this Charter is to preserve and safeguard the history of vehicles including their engineering, form, functions and documented histories and their many and diverse relationships with society and social environments. To understand, appreciate and ensure the preservation and operation of historic vehicles, including their use on public roads, it is important to use the research methods, scientific, historical and technical knowledge available and involve the organisations and facilities working in this sector.



Art. 2

- FUTURE -

Preservation, restoration and any related work processes are aimed at sustaining historic vehicles as both technical artefacts and witnesses of transport history and culture. It is imperative to pass on the methods used, material knowledge and work processes to future generations. We also aim to preserve the special knowledge, expertise and skills related to the manufacture and operation of such vehicles. vehicles, including their use on public roads, it is important to use the research methods, scientific, historical and technical knowledge available and involve the organisations and facilities working in this sector.



Art. 3

- CARE -

Permanent and sustainable care are essential for the survival of historic vehicles. Use of historic vehicles, including on public roads, is important for their preservation. It is the only way to fully understand and pass on the traditional knowledge of driving and maintaining them for future generations.



*Art. 4***- POSITION -**

It is beneficial for the preservation of historic vehicles that they are seen as an integral part of public life and perceived as a contribution to our cultural heritage.

It is important and desirable that they can be used. However, in order to use them, historic vehicles should not be modified more than necessary. Unavoidable modifications should not interfere with the historic substance. As a matter of principle, they should not alter the vehicle's period engineering and appearance.

*Art. 5***- PROCESSES -**

The preservation of historic vehicles can require interventions or restorations to different extents. Preservation means the care and prevention from deterioration or damage, by which the present condition, individual and memorial quality of a historic vehicle or object is safeguarded. Conservation includes all acts serving to secure and stabilise the vehicle or object that do not alter the historic substance, parts and materials. Conservation treatment will not put at risk the object's historical or material documentary value in any way. It serves exclusively to prevent or at least delay continued deterioration. Usually, such measures are not visible on the surface. Restoration is the process of replacing missing parts or areas with the aim of displaying an earlier state of the vehicle and goes further than conservation. Restored areas should discreetly blend in with the existing historic stock, but remain distinguishable on closer inspection. This is different from repair that stands for the adaptation, refurbishment or replacement of existing or missing components. Repair makes a vehicle fully operational again and may not take into account the authentic substance belonging to the vehicle. Preservation, conservation, and restoration are specialised processes aimed at safeguarding and displaying a vehicle's engineering, aesthetic, functional, social and historic value. They should aim at understanding and considering the original design and the historic background of the individual vehicle. They should be based on respect for the individual historic entity and information found in authentic documents.



Art. 6

- HISTORY -

Any changes and modifications to a vehicle which occurred during its ordinary life span and altering its condition as originally delivered are testimonials of the vehicle's history and should be preserved as such. Therefore it is not necessary to restore a historic vehicle in a way that adjusts its look and technical features back to the appearance of the manufacturing date. A restoration that would return a vehicle to the appearance of a certain period should only be attempted with careful examination of historical records or thorough planning. Components and materials inserted to replace historic parts in the process of a restoration should be identified with simple and permanent markings to distinguish them from the historic substance. For replaced parts, FIVA recommends the marking system attached to this charter (*see Appendix 1*).



Art. 7

- ACCURACY -

During the restoration of historic vehicles historically accurate materials and work techniques should be preferred, unless such materials or techniques can no longer be used because of safety concerns, lack of availability or legal prohibitions. Especially in the conservation of historic substance, traditional materials may not be adequate. As elsewhere in the field of restoration, modern materials and working techniques may then be used instead, provided they have been proven adequate and durable in experiments or tried in practice.



Art. 8

- APPEARANCE -

Any modifications to a historic vehicle required outside of its ordinary lifespan should be integrated discreetly and respect the original structure and appearance. Such modifications should be reversible. It is recommended that any important original parts removed should be kept with the vehicle for later use and to serve as reference of their original existence and make.



*Art. 9***- PLANNING -**

Any work undertaken on a historic vehicle should be planned systematically and documented in an appropriate manner. These records should be maintained with the vehicle.

*Art. 10***- ARCHIVES -**

Any persons, facilities and organisations involved in the preservation, conservation, restoration, repair and operation of historic vehicles should take appropriate steps to protect their records and archives.

*Art. 11***- STATUS -**

Institutions engaged in the preservation and transfer of knowledge or specialist skills required in the preservation and operation of historic vehicles should seek recognition by international and national governmental authorities as cultural heritage and institutions Archives consisting of documents, drawings, photographs or other media and artefacts relating to historic vehicles should be cared for as part of the cultural heritage.



Appendix 1

PROPOSED MARKING SYSTEM

The system uses the following letters for permanent marking:

NB = “newly built” an accurate as possible a copy in terms of form, materials and make, reproduced directly from a documented original).

FR = “free reconstruction” (reconstruction without using any historic model in terms of form, material or work technique. The part however fulfils the technical function of an historic component utilised earlier).

CS = “conservational stabilisation” (a later structural reinforcement added to stabilize the historic substance).

We recommend the indication of the year of restoration/manufacture of the replacement part with the two-letter code.

GLOSSARY OF TERMS

This glossary aims to define the terms used in the Charter of Turin for the preservation and treatment of historic vehicles.

It seeks to harmonise the different terms used in the field of historic vehicles where possible, for example in the FIVA technical code and the professional terms for description and treatment of cultural goods used since the 1960's.

This includes important references including the terms established in international law concerning cultural goods, in the following:

- the Venice Charter;
- the European Standard DIN EN 15898:2011-12 (conservation of cultural property, main general terms and definitions) where appropriate;
- the professional vocabulary adopted by ICOM (International Council of Museums) and the ICOM Committee for Conservation.

See also the UNESCO note on the list of cultural goods and services¹.

The Charter is also forming the basis of the FIVA strategy to develop relationships with other heritage organisations, including The International Committee for the

1 http://fr.unesco.org/creativity/sites/c_reativity/files/clt_cpd_note_list_goods_services_en_092004.pdf

Conservation of the Industrial Heritage (TICCIH) and the relevant sections of the United Nations Educational, Scientific and Cultural Organisation (UNESCO). The aim be to gain recognition for FIVA as the leading body for historic vehicle culture and heritage.

In order to assist with clarifying the balance between a historic artefact and a real life restoration, examples of vehicles restored and maintained in sympathy with the Charter of Turin are planned to be shown in an associated Handbook.

Alteration

Modification of the material that does not necessarily imply a worsening of its characteristics from the point of view of conservation. For instance, a reversible coating applied on a vehicle may be considered as an alteration.

Artefact

An object that is made by a person especially one that is of historic interest.

Conservation

The basic principle is that the original substance that has been lost cannot be regained. Conservation measures aim to stop or at least delay existing deterioration and damage.

The historic substance of a vehicle would not normally be altered by such measures but additional materials to stabilise the substance can be brought into the object.

Conservation treatment should be managed so as to not put at risk the object's historical or material value. It should aim to minimise any alterations to the historic substance, parts and materials. These measures may not be visible on the surface of the vehicle.

Conservation measures aim to consolidate the materials and stabilise the current condition of the vehicle. Conservation work should not alter traces of make, use, wear and ageing, even existing damage will only be stabilised but not removed.

Examples:

- Additional bracing that is required to fix loose wooden joints in the inner construction of a vehicle body.
- Refixing loose components.
- Securing tears in textile or leather.

- Consolidation of chipped paint layers.
- Covering corroding metal areas with protecting materials.

Cultural Heritage
a) Material Cultural Heritage

Material cultural heritage means movable or immovable objects, which have been made, formed or altered by people. These objects represent important values for present and future generations because they give an insight into the historic, social, artistic, scientific, architectural and technical development of mankind. These may include unique specimens, mass produced objects, collections or the complex manufacturing and distribution facilities.

b) Mobile Technical Heritage

This was coined as a technical term by cultural historians. It was originally taken to refer to any rail vehicle, vessel, aircraft or automobile, which in total is deemed to be significant in the history of human culture and technology.

Factors, such as design, technical breakthroughs or special cultural relevance are important. Including a history related to certain key events and/or personalities.

Examples are many and varied and can include vehicles;

- that show innovative technical features for their time starting with Karl Benz' first automobile built in 1885, the 1908 Ford Model T, the 1938 air-cooled Volkswagen "beetle" and the hydropneumatic suspended Citroen DS, the MZ 2 stroke racing motorcycle whose technology was the basis for the Japanese championship winning machines used by Barry Sheene and Kenny Roberts;
- which have been involved in historic events such as the 1911 Gräf & Stift Double Phaeton, which the Archduke Franz Ferdinand was in when he was assassinated, the trigger for the 1st World War, the special SS-100-X Lincoln in which JFK was shot or Lenin's 1922 Rolls-Royce 40/50 Silver Ghost;
- with a racing history, such as a Maserati 250F raced by Juan Manuel Fangio, the Mercedes 300SLR used by Stirling Moss to win the 1955 Mille Miglia or Jim Clark's Indianapolis 500 winning Lotus 38;

- that have featured in movies or TV series, such as Steve McQueen’s Mustang in Bullit, the Disney “Herbie” Beetle, the De Lorean DMC-12 in Back to the Future and “General Lee” the Dodge Charger from The Dukes of Hazard;
- that have been achieved certain milestones, such as US citizen Irv Gordon’s 1966 Volvo P1800, which since being purchased new has clocked more than 3 million miles without ever breaking down²;
- which have had an impact on society or reflect special social issues of their time such as the mass produced Ford model T, possibly the most influential car of the 20th century, the Austin 7 which was licensed to BMW and to Nissan amongst others and the Mini which became an icon of the “swinging sixties” as well as successful in racing and rallying.

Damage

Changes, which considerably limit or inhibit the operability of an object, phenomena which cause severe progressive deterioration and changes caused by ongoing neglect.

Examples;

- a road traffic accident;
- severe corrosion;
- tears in textiles that would be made worse by normal use.

Damage that fits these criteria are not normally part of patina!

Deterioration

The natural process of degeneration, whereby the vehicle condition becomes worse without quality storage or regular use, servicing and maintenance. Thus reducing the quality, value, and character of the machine.

2 <http://www.vcoa.org/index.php/community/irv-o-meter>.

- Documentation* The compilation of information records about a historic vehicle, for example;
- drawings, photographs or other pictorial documents,
 - historic training or maintenance literature,
 - written descriptions and reports about servicing, conservation and restoration treatments,
 - results of investigations and analysis,
 - reference documents compiling details about the individual history and the material entity of a vehicle.
- Historically Accurate* Historically accurate means changes made using materials and techniques available when the vehicle was originally made. These may be subject to national regulations, including safety concerns and the availability of skilled technicians, equipment and parts.
- Historic Substance* Any changes and modifications to a vehicle which occurred during its normal life span.
- Individual and Memorial Quality* Maintenance and preservation undertaken in line with how the original role of the vehicle is remembered.
- Manufacturer* The entity or person(s) who own the rights to and designs, constructs and markets a vehicle.
- Modified* Modifications are all deviations from the condition as delivered from the manufacturer or constructor. These can be described on the FIVA Identity Card and should include the date and if known, the modifying entity. Such modifications will be differentiated by their historical significance and classified into the following categories:
- **Period modifications** - are documented and confirmed to have been completed in period.

- **Period type modifications** - modifications completed to a vehicle out of period of a kind that were used in period.
- **Non-period modifications** - modifications not used in period or made using parts or technology not available at the time of construction. Such modifications may affect the vehicle value and depending on the type and national regulations, the build year and/or year of registration³.

In any event it is strongly recommended that a historic vehicle owner should carefully document any modifications performed, so that future owners will know the history.

*Ordinary
Life Span*

FIVA define this as 15 years.

So if a vehicle was manufactured in 1960, it can be expected to no longer be in regular use or scrapped by 1975. An exception can be made for special circumstances, for example the period is increased to 20 years for vehicles built between 1925 and 1945 because of World War II.

*Preservation
(synonym:
Preventive
Conservation)*

Preservation means the care taken to minimize or prevent future deterioration, damage or at least delay their appearance as long as possible.

Once the original substance has been lost cannot be regained but preservation measures will safeguard the current condition and quality of a historic vehicle. Such measures do not interfere with the present substance of the vehicle or change it in any way.

Examples:

- Storage facilities that are environmentally beneficial, particularly re temperature and humidity. They should preferably provide a cool, dry atmosphere that both inhibits corrosion and also does not damage components such as leather or wood framing through over-drying.

3 See also the relevant sections of the FIVA Technical Code.

- Regular servicing and maintenance.
- Removal of aggressive dirt layers that will cause deterioration, such as bird droppings.

Repair

Repair involves the adaptation, refurbishment or replacement of existing, damaged or missing components. It can make a vehicle fully operational again and may not take into account the authentic substance belonging to the vehicle. Such measures aim to regain full functionality to the standard it was prior to the damage or even enhancing it compared to the historic standard.

We can differentiate between;

- **Pragmatic repairs:** the vehicle will be made operable again probably by improvised method which do not necessarily comply with professional standards.
- **Professional repairs:** the methods and materials used comply with the current professional standards.

Examples for pragmatic repairs can include;

- The replacement of the broken original engine with an engine of an entirely different type that can be made to fit, with the simple aim to keep the vehicle in operation.
- Broken components are fixed temporarily with a piece of wire.
- A hammer is used to move bent bodywork away from a wheel.

Plus for professional repairs;

- A partly damaged wing of a VW Beetle is replaced by a newly built spare part made of metal or even laminated glass fibre.
- Repairing torn or split leather seats so that they are kept at the current level of patina but will not deteriorate further.
- Damaged bodywork is repaired and painted with professional skills and full garage facilities. This is different from a “patina” style restoration which could

have been repaired by inserting sheet metal into corroded parts of the wing, so to a large extent the remaining original substance of the wing would have been kept.

*Responsible
Use /
Responsible
Utilisation*

The challenge for the owner of a historic vehicle is to balance stewardship against the pleasure to be derived from usage. Stewardship involves the owner having the responsibility of keeping the vehicle in a condition whereby when it is passed on to the next generation it will still be usable and enjoyable to drive/ride on the road.

Historic racing may be regarded as an extreme example, i.e. should a Ferrari 250LM, of which 32 were built, be raced on the limit at Classic Le Mans or the Goodwood Revival or driven more as a historic display? Economics may be a major factor given that, at the time of writing, a Ferrari 250LM example was due to be auctioned in New York where it is expected to sell for in excess of \$12 million.

Restoration

Restoration is the process of replacing missing parts or areas with the aim of displaying the vehicle as it was at a particular point in time.

The basics to be followed are to recognise the principle “to interfere as much as necessary and as little as possible”. Treatment should only be carried out in areas that show deterioration, missing components and/or damage

It should not change the driving characteristics, technical features or design of a historic vehicle.

Authentic materials and working techniques should be used wherever possible. Restored areas should discreetly blend in with the existing material but can remain distinguishable on closer inspection.

Modern materials and working techniques can be employed when historic methods cannot be used. In most cases of totally restored vehicles, repairs and newly built/reconstructed components will have to be used. Areas treated, completed or added in this manner should preferably be marked and documented.

The overall aim being to maintain the vehicle in a historically coherent state with minimal disruption. For vehicles in a “mixed condition” that show a range of different period modifications typically from older restorations, care will be needed when planning on-going treatment. Otherwise the vehicle is in danger of being “disrupted” as a historic entity. In some of these cases it can be appropriate to leave even “out of period” modifications as part of the vehicles history instead of replacing them by new and possibly hypothetical (i.e. guessed at or assumed) reconstructions.

Examples of “disrupted condition” vehicles can include:

- The Mercedes 710 SS GP10 “Malcolm Campbell”, from 1930, delivered in “bluebird blue” paint with fuel pipe running on the outside of the body. The car was overpainted white in 1945 and the fuel pipe was changed to running on the inside. A restoration back to the primary blue body colour without also changing back the fuel pipe would mean the vehicle is in a historically “disrupted condition”.
- A BMW 319 from 1935 has been modified in period by adding a supercharger/ compressor and at the same time repainted in a different colour. For the restoration it is planned to keep the compressor as a “modification in period” but to repaint the vehicle in the original body colour.
- So called “rat cars or motorcycles” that intentionally shown in a superficially neglected and damaged condition on the surface, which sometimes can be done by artificial patination. However underneath they can have been restored to a good standard or even renovated and tuned.

Reversibility / Reversible

Reversible means that materials can be removed without residue and changes can be returned to the earlier condition it was in before treatment, without causing damage or loss of the historic substance of the vehicle.

As a principle, conservation and restoration measures and the materials used should, whenever possible, be planned,

chosen and executed with the aim that they should be reversibility whenever possible.

This concept, which is very important for the saving the historic substance is often limited by real-life requirements.

Examples can include;

- Fixing modern licence plates or additional lighting equipment which require drilling holes into the body. Of course the mounted components can be removed, but the drilled areas cannot be entirely brought back to the condition they were in previously.
- The use of gluing agents to reattach chipped paint layers or the application of wax on porous materials: such materials may be reversible because they can be restored by appropriate solvents and removed from the surface but practically they cannot be entirely removed (i.e. underneath paint chips or from textiles).
- When retouching damage and losses in painted areas. In some cases they may have a thermoplastic content. This means they can deteriorate with higher temperatures that could occur in vehicle when in active use. In practice they can be employed in selected areas but this should be considered on a case-by-case basis.
- Welded additions of sheet metal to replace corroded or missing parts of the vehicle body. Such additions can be removed again, but the condition before the treatment cannot be entirely regained.

*Sustainable
Care*

Necessary work to keep the vehicle fully functional.

HANDBOOK PREFACE

*by Roberto Loi, President
of the FIVA Culture Commission*

Already over four years passed since the first publication and distribution of the FIVA Charter of Turin, which shall be remembered as a milestone for all the enthusiasts in the field of historic vehicles, for two main reasons.

First of all, it is the formal assessment of a new way of looking at historic vehicles: it has been the signal that they should no longer be seen just as a hobby, a toy for grown-up boys, but rather a part of the cultural heritage of our civilization. Historic vehicles, without regard to their commercial value, are now increasingly considered as cultural artefacts to be preserved as part of our collective memory.

The second aspect is a consequence of the first: since historic vehicles are part of history and culture, and not only a hobby, the Charter of Turin is also a new way to conceive their restoration and preservation. A cultural artefact needs proper and consistent maintenance. Just as we cannot imagine restoring a historic building – let’s say a Greek temple, for example – as if it was built yesterday, because it would represent a falsification of its nature and a mystification of its history, in the same way we should avoid bringing vehicles back to a “better than new” or “mint” condition. The “historic substance” – a key topic of the Charter – needs to be preserved as much as possible.

It is important to point out, however, that the Charter of Turin has been conceived as a guideline and an advice for good practice, rather than an imposition for our members.

FIVA's intention is to protect and promote a correct and historically respectful way of looking at the past.

After releasing the Charter, the Culture Commission has kept on working to make its message even more accessible and clear. That's why in 2015 we presented to the FIVA General Assembly a Turin Charter Glossary, which aims to clarifying the meaning of the terms used in the Charter and that's why today we are presenting this Handbook.

The handbook is destined to be seen by a broader public, to attract, interest and stimulate newcomers. Possibly, experts and insiders will turn up their noses when reading it but this document is intended as a guideline to make the principles more tangible and accessible, as much as possible, to everybody, even when dealing with some technical aspects.

It is composed by two parts: a theoretical preface, composed of three masterly contributions originally written by Rodolphe Rapetti, Richard Keller and Thomas Kohler, and a more practical part, dealing with the delicate subject of the restoration and maintenance of historic machines.

The order of appearance of the three essays is not casual, but follows a precise design. Rodolphe Rapetti, functionary of the French Ministry of Culture, in his precious contribution, introduces the cultural role and significance of historic vehicles, starting with the words of the famous semiologist Roland Barthes: "I believe that nowadays the car is the precise correspondent of ancient Gothic cathedrals, I mean those huge products of an era, designed with passion by unknown artists, and which are used and enjoyed by an entire people who, with them, takes possession of a perfectly magical object."

Richard Keller, curator of the Cité de l'Automobile at Mulhouse France, deepens the subject with particular attention to the preservation activities developed in the world of Museums.

Last but not least, Thomas Kohler, spiritual father of the Charter of Turin, gives a precise description of the meaning of authenticity and authentic restoration, which is at the core of the Charter.

However, theory must always be followed by practice, and the second part explains in a more concrete way how to apply the principles of the Charter. For this part, I would like to express my sincere gratitude for the help of two great experts: Alfredo Zanellato Vignale, nephew of the illustrious designer, engineer, painter and teacher, who has written the part dedicated to the bodywork, and Lorenzo Morello, former Professor at the Polytechnic School of Turin and FIAT consultant, who has curated the mechanic parts.

The Handbook does deal with some technicalities, but I strongly believe that technic and mechanics are definitely a part of our world with a high cultural value, which surely deserves to be known.

Finally, I would like to thank the Culture Commission Members for their sympathy. Without their support and engagement, none of this would have been possible. Their names are Mario De Rosa, Ersi Economides, Nataša Jerina Grom, Keith Gibbins, Peter Ulrich Gilb, Rony Karam and Jochen Thoma. Thank you in particular to Keith Gibbins, who did the proofreading.

I wish you all a good reading!



The FIWA Culture Commission. From left to right: Peter Ulrich Gilb, Ersi Economides, Keith Gibbins, Roberto Loi, Rony Karam, Nataša Jerina Grom, Jochen Thoma, Mario De Rosa.



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