Michael Petzet

PRINCIPLES OF PRESERVATION

An Introduction to the International Charters for Conservation and Restoration 40 Years after the Venice Charter

The Venice Charter, the International Charter for the Conservation and Restoration of Monuments and Sites (1964), phrased 40 years ago by the 2nd International Congress of Architects and Technicians of Historic Monuments, was also the foundation stone of ICOMOS since the resolution to found an International Council of Monuments and Sites was adopted in Venice at the same time as the Charter: the fundamental "resolution concerning the creation of an international non-governmental organization for monuments and sites", whose General Constituent Assemble was held a year later in Cracow. In his preface to the publication of the congress papers Piero Gazzola, first President of ICOMOS, later rightly underlined this close connection: The results of the meeting are momentous. We need only recall the creation of the International Council of Monuments and Sites -*ICOMOS* – the institution which constitutes the court of highest appeal in the area of the restoration of monuments, and of the conservation of ancient historical centers, of the landscape and in general of places of artistic and historical importance. That organization must supervise the creation of specialized personnel, its recruitment and advancement. It must oversee the use of international exchanges and in addition concern itself with the creation of local international committees that are capable of counseling international organizations (UNESCO, the Council of Europe, etc.). ... With the creation of ICOMOS a gap lamented by every nation has been closed and a need which had been felt by every local organization concerned with conservation

satisfied. But above all, it is to be recognized that the most important positive result by far of this assembly has been the formulation of the international code for restoration: not simply a cultural episode but a text of historical importance. In fact, it constitutes an obligation which no one will be able to ignore, the spirit of which all experts will have to keep if they do not want to be considered cultural outlaws. The concerns thus codified constitute for everyone today an unassailable document the validity of which will be affirmed more and more as time passes, thereby uniting the name of Venice forever with this historic event. In fact, from now on, the Charter of Venice will be in all the world the official code in the field of the conservation of cultural properties.

With his words about the Venice Charter, the foundation document of ICOMOS, Piero Gazzola, who demanded high standards of the work of ICOMOS, standards of which we should stay aware in the future, was right. This Charter, to which in later years other Charters and Principles adopted by the General Assemblies of ICOMOS have referred, is admittedly in some respects a historical document typical of the time of its creation (cf. p. 28) and needs to be newly interpreted time and again. However, it is and remains an irreplaceable instrument for our work on the international level, and attempts to write a "new Charter of Venice" – one example being the Cracow Charter of 2000 – make little sense.

I. MONUMENTS AND SITES IN THE FULL RICHNESS OF THEIR AUTHENTICITY

Imbued with a message of the past, the historic monuments of generations of people remain to the present day as living witnesses of their age-old traditions. People are becoming more and more conscious of the unity of human values and regard ancient monuments as a common heritage. The common responsibility to safeguard them for future generations is recognized. It is our duty to hand them on in the full richness of their authenticity. These are the first words of the introduction of the Venice Charter, which however did not further define the authentic monument values to be safeguarded for future generations. This was the task of the Nara conference (1994): The Nara Document on Authenticity is conceived in the spirit of the Charter of Venice and builds on it and extends it in response to the expanding scope of cultural heritage concerns and interests in our contemporary world (preamble of the Nara Document, cf. p. 118). The Nara Document, one of the most important papers of modern conservation theory, tried to define the "test of authenticity in design material and workmanship" developed for the implementation of the World Heritage Convention of 1972 (cf. p. 49)

as broadly as possible so that according to the decisive article 13 it explicitly also included the immaterial values of cultural heritage: Depending on the nature of the cultural heritage, its cultural context and its evolution through time authenticity judgements may be linked to the worth of a great variety of sources of information. Aspects of the sources may include form and design, materials and substance, use and function, traditions and techniques, location and setting, and spirit and feeling, and other internal and external factors.

Many of the factors named here are, however, already implied in the Venice Charter, e.g. authentic location and setting in article 6: The conservation of a monument implies preserving a setting which is not out of scale. Wherever the traditional setting exists, it must be kept. No new construction, demolition or modification which would alter the relations of mass and color must be allowed. Also in article 7: A monument is inseparable from the history to which it bears witness and from the setting in which it occurs. A further prerequisite for the preservation of monuments concerns use and function, about which article 5 of

the charter states: The conservation of monuments is always facilitated by making use of them for some socially useful purpose. Such use is therefore desirable but it must not change the lay-out or decoration of the building. It is within these limits only that modifications demanded by a change of function should be envisaged and may be permitted. This article 5 refers to the limits that must be placed on modifications necessary for the use of a monument, limits which must be emphasized because of a tendency in modern management toward "use fetishism" ("a monument without a use is lost"). Without going into more detail concerning the very important basic issue of use as a general prerequisite for the preservation of certain categories of monuments, we need only point out here that under the "useful function" of a monument we can understand not only its actual use, whatever that may be, but also its cultural statements, such as the aesthetic statement of an "art monument" or the historical statement of a "historic monument" (for example the function of a historic building as a spatial and historical "point of orien-

But the Charter of Venice focuses not only on setting and function, but also on form, material and techniques of production, on authentic monuments and sites as a whole - monuments "in the full richness of their authenticity". A prime concern of the Charter is the preservation and conservation of the authentic fabric. The "originalness" of a monument does not, however, refer only to its earliest appearance but rather encompasses later alterations: *The valid contributions of all periods....must be respected* (article 11, cf. also p. 11). The Charter also emphasizes the indissoluble connections among all the parts of a monument and between the monument and its decorative features, which should no more be torn out of their context: *Items of sculpture, painting or decoration which form an integral part of a monument may only be removed from it if this is the sole means of ensuring their preservation* (article 8).

In any case modern preservation practice, understood as a conscious safeguarding of evidence, has to be able to justify responsibility for the loss of certain historic layers in some circumstances or be able to tolerate losses at times for the sake of the continued guarantee of a monument's function. Only as a discipline operating scientifically will preservation be able to master the issues involved in weighing gains against losses, to surmount the problems that every work decision presents. The conservation and restoration of monuments must have recourse to all the sciences and techniques which can contribute to the study and safeguarding of the architectural heritage, asserts article 2 of the Venice Charter. So today the scientific aspect of preservation practice is a self-evident and generally accepted requirement. This is also true for the documentation that is necessary to prepare, accompany and conclude every individual project that is carried out according to the methods and principles described in the following chapters. The Venice Charter closes along these lines with article 16, which is in fact self-evident for the scientific-based discipline of preservation but for various reasons is often badly neglected in practice: In all works of preservation, restoration or excavation, there should always be precise documentation in the form of analytical and critical reports, illustrated with drawings and photographs. Every stage of the work of clearing, consolidation, rearrangement and integration, as well as technical and formal features identified during the

course of the work, should be included. This record should be placed in the archives of a public institution and made available to research workers. It is recommended that the report should be published. Some of these reflections were already pre-formulated in the forerunner of the Venice Charter, the Charter of Athens (VIIc "values of international documentation", cf. p. 31).

Of utmost importance for the international role of the Charter of Venice as an "official code in the field of conservation" (cf. quotation p. 7) was finally that in article 1 it defined the monument concept, which was based on European traditions, very broadly: The concept of a historic monument embraces not only the single architectural work but also the urban or rural setting in which is found the evidence of a particular civilization, a significant development or a historic event. This applies not only to great works of art but also to more modest works of the past which have acquired significance with the passing of time.

If the Charter of Venice defines a monument concept that also includes "modest works of the past", at the time when it was adopted it probably had those monuments and sites in mind, which a few years later, in 1972, the World Heritage Convention defined as "cultural heritage", however with reference to monuments of all kinds, not necessarily with the "outstanding value" demanded by the Convention:

- monuments: architectural works, works of monumental sculpture and painting, elements or structures of an archaeological nature, inscriptions, cave dwellings and combinations of features, which are of outstanding universal value from the point of view of history, art or science;
- groups of buildings: groups of separate or connected buildings which, because of their architecture, their homogeneity or their place in the landscape, are of outstanding universal value from the point of view of history, art or science;
- sites: works of man or the combined works of nature and man, and areas including archaeological sites which are of outstanding universal value from the historical, aesthetic, ethnological or anthropological point of view.

Of course, it goes without saying that in the decades since the Venice Charter was passed the idea of how modern society defines "cultural heritage" has grown considerably, if we only think of the categories of "cultural landscapes" and "cultural routes" further developed within the framework of the implementation of the World Heritage Convention, or of the growing interest in rural settlements and vernacular architecture, in the heritage of the industrial age or in "modern" heritage, taking into account that the 20th century has also become history. But even such categories of cultural heritage are compatible with the Charter of Venice, if in accordance with cultural diversity one understands the terms "monuments" and "sites" in all their formations. If "everything which reminds us of something" can be a "monument" according to the definition in a late classical commentary on Cicero (omnia monumenta sunt quae faciunt alicuius rei recordationem) the public interest in protection and conservation of "objects of remembrance" can be very comprehensive and range from the authentic spirit of a holy place, possibly only tangible in weak traces, to witnesses of the past made of seemingly indestructible material.

II. PRINCIPLES OF CONSERVATION, RESTORATION, RENOVATION AND REPLACEMENT

Already the Athens Charter for the Restoration of Historic Monuments (see pp. 31-32) distinguishes between restoration and conservation in the narrow sense (cf. the technique of conservation in the case of ruins, quoted p. 32), both of which are then named in the title of the Venice Charter – International Charter for the Conservation and Restoration of Monuments and Sites and used for the subheadings of the corresponding articles, conservation above articles 4 to 8, restoration above articles 9 to 13. Although nowadays conservation/restoration is also used in general for all kinds of measures for the preservation of monuments and sites – that is preservation or conservation/restoration in general – it remains necessary and useful for the understanding of our international charters to differentiate between conservation and restoration in the narrow sense. The term "conservation/restoration" which in the meantime is frequently used in papers for the work of restorers (for instance in our new Principles for the Conservation of Mural Paintings, see pp. 162-164 ff.) only emphasizes the often indissoluble connection between these methods of preservation, both of which cover preservation measures of very different types, from conservation of prehistoric traces to conservation and restoration of the exterior or interior of historic buildings, including all works of art, fittings and movable objects.

In the history of preservation especially the term restoration has been differently defined. If for some "puristic" colleagues the term "restoration" still arouses negative associations, it has to do with the still existing consequences of the battle fought around 1900 against the restoration methods of the 19th century focusing more or less on reconstructions, for which Viollet-le-Duc's famous definition of "restoration" (see p. 28) may serve as a representative. Against this background not only such a famous catchphrase as Georg Dehio's "conserve, do not restore" must be understood, but also the highly restrictive position of the Venice Charter when it comes to replacements or even reconstructions. The latter becomes particularly clear in the French version of article 9: La restauration est une opération qui doit garder un caractère exceptionnel (!) (whereas in the English version it only says: The process of restoration is a highly specialized operation). It is also characteristic that in this context the term "reconstruction" is only used in article 15 of the Venice Charter, on the issue of excavations (see p. 24), while the term "renovation" is avoided altogether, although despite negative experiences with the restoration methods of the 19th century the 20th century also very often not only conserved and restored, but in fact renovated and reconstructed.

Under these circumstances in modern specialized literature these terms are often used without differentiation – restoration as a general term for restoration and conservation, renovation instead of restoration or the other way around – not to mention the fact that in some countries the term "reconstruction" is used instead of restoration or renovation regardless of whether a structure is in fact being reconstructed, restored, renovated or merely conserved. Overlapping with one another in practice, the preservation methods used in conservation, restoration and renovation must therefore be precisely understood, also because unfortunately the basic goal of all preservation work frequently disap-

pears – as if behind a wall of fog – behind justifying, undifferentiated catchwords for a successful "restoration" or "renovation" which in fact cover up all manner of work – and in extreme cases even destruction of the original. To repeat once again: Every preservation measure – whether conserving, restoring or renovating – should serve the preservation of the monument and its historic fabric; in other words, serve the preservation of the original in the form in which it has come down to us, with its various layers and with its outstanding as well as its seemingly secondary or insignificant components. Under the heading "Aim" article 3 of the Venice Charter summarizes briefly this self-evident prerequisite of every preservation concept: *The intention in conserving and restoring monuments is to safeguard them no less as works of art than as historical evidence*.

From this basic objective it becomes clear that in certain cases only conservation in the narrow sense is acceptable; restoration or renovation would be possible or desirable only under certain preconditions, or perhaps must be strictly rejected.

In connection with the method of renovation which goes far beyond restoration the traditional preservation methods of conservation and restoration will in the following therefore not be described without explicit reference to the dangers of restoration and especially renovation, still existing 40 years after the Venice Charter. Also at the beginning of the 21st century these terms can describe a wide spectrum of measures in accordance with the modern understanding of monuments and sites, whereas formerly the terms conservation, restoration and renovation were used primarily in connection with works of painting and sculpture or in the context of "art monuments" in the field of "classical" preservation. In the following conservation will only be used in the narrow sense, not as conservation in general.

Conservation

To conserve (conservare) means to keep, to preserve. Thus the basic attitude of preservation comes most purely to expression in conservation: to conserve is the supreme preservation principle. Together with stabilization and safeguarding measures, conservation work that protects the fabric of a monument and prevents its further loss should therefore have absolute priority over all other measures. Unfortunately this principle cannot be taken for granted because often parts of a monument are renovated or even reconstructed at great cost while other components of the same building continue to deteriorate without urgently necessary conservation work.

All those measures that serve the preservation of the fabric of a monument are to be counted as conservation work. Conservation includes, for example, consolidation of the historic fabric of a monument: impregnation of a stone sculpture, injections in the cavities behind a layer of plaster, securing a layer of peeling pigment on a painting or a polychrome sculpture, strengthening a picture support, etc. For a historic building conservation includes all measures that prevent further decay and preserve the historic fabric. This can encompass structural strengthening

with appropriate auxiliary constructions, or the replacement and completion of components insofar as this prevents their further deterioration. In this sense the constant replacement of damaged stones by the cathedral stonemason workshops is a borderline case between conservation and restoration. Moreover, in addition to traditional techniques available modern technology must also be used in conservation in certain circumstances to save historic fabric. Special reference to this is made in article 10 of the Venice Charter: Where traditional techniques prove inadequate, the consolidation of a monument can be achieved by the use of any modern technique for conservation and construction, the efficacy of which has been shown by scientific data and proved by experience. Caution with regard to methods that are not sufficiently proven or tested is always in order, unless the monument in question cannot be saved by any other means. In some cases - involving, for instance, full impregnation with acrylic resins of a stone figure that is not to be saved any other way – the principle of reversibility must also be disregarded in conservation.

Repair measures that go beyond a mere safeguarding of the existing fabric are no longer within the scope of conservation work; for instance the completion of a gap, be it a crack in a painting or a break in a city wall, is not conservation work unless such fillins are necessary for the techniques used in safeguarding. In contrast, the removal of fabric that endangers a monument can be considered an important conservation measure. This sometimes includes the removal of intruding alterations from modern times, to the extent that they actually endanger historic fabric (for instance removal of an installation that causes structural damage or of new plastering that contains cement).

The ruin, especially the castle ruin, which played a central role in the preservation debates at the turn of the 19th century, offers a perfect illustration for conservation to which the Athens Charter already refers: In the case of ruins, scrupulous conservation is necessary... Here the monument value also derives from the fragmentary, ruinous state that reminds us of the past, making history present through the "scars of time". Maneuvering between the idea of reconstruction, which crops up sometimes even today, and the occasionally advocated idea of letting the ruin "perish in beauty" (the latter being an understandable reaction to destruction of the actual historic monument as usually results from the former), the conservation plan must seek the correct path for each individual case: for instance stabilization of the walls - but only stabilization, without falsification of the character of the ruin through unnecessary additions. Even the removal of plant growth, seemingly self-evident as an initial conservation measure, must be carefully considered; although the growth endangers the fabric it contributes very critically to the "picturesque" character of the monument. In cases of definitive, otherwise inevitable ruin of an important building component - such as the fresco fragments in the remains of a castle chapel - a roofing-over can be an unavoidable conservation measure, even if it actually contradicts the nature of the ruin. In this context we can understand the covering over carefully conserved wall remnants and the paved floor of a Roman bath, which would be completely destroyed within a few years without a protective roof. In the case of castle ruins, certain wall remnants and findings are and will remain best conserved under the earth, better preserved than if they are subjected to the amateur excavations that unfortunately are so popular at such sites

and that, without supervision, only irrevocably destroy their findings.

As not only the example of the ruin makes clear, to conserve means to preserve the monument even in a fragmentary state: the fragments of a fresco, a sculpture, a vase or an epitaph are all objects whose historic state should not be "falsified" through additions in the sense of a restoration or renovation.

In other words, for certain categories of monuments conservation is the first and only measure! It is obvious for several reasons that this particularly applies to monuments that are to be seen in a museum-like context. In contrast an inhabited old town cannot be preserved as a historic district using conservation measures exclusively. The "use-value" of many types of monuments demands repair or careful rehabilitation that goes beyond conservation work and thus also involves additional preservation methods which certainly include restoration and perhaps also renovation work. However, conservation always is and will remain the starting point for all deliberations in the field of preservation.

Restoration

To restore (restaurare) means to re-establish; in the following it is not to be defined as a term meaning major preservation work in general, as is often customary, but rather as a measure that is to be differentiated from conservation and safeguarding as well as from renovation. The Venice Charter says the aim of restoration is to preserve and reveal the aesthetic and historic value of the monument and is based on respect for original material and authentic documents. Thus it should go beyond merely "preserving", or conserving a monument to "reveal" aesthetic and historic values; or in other words to accentuate values of a monument that are hidden (for whatever reason), disfigured or impaired: that means to "re-establish" them. Whereas conservation of the existing fabric of a monument only attempts, as far as is necessary, to stabilize individual areas technically and to eliminate sources of danger that directly threaten the fabric, restoration is concerned with the overall appearance of the monument as historical and artistic evidence.

Following upon the stabilization and conservation of the original fabric, a restoration adds new elements, without reducing the original fabric. Because a gap in a painting, for instance, can severely impair the overall aesthetic effect, far beyond the very restricted area of the actual damage (which may itself be relatively minor), an effort is made to close the gap by means of retouching. The many possibilities for restoration, which must be carefully weighed in each individual case, range here from a neutral "adjustment" in a painting to a detailed replacement of missing elements, as would be undertaken for gaps in decorative plasterwork or for certain architectural sculpture. The bay that has collapsed because of structural damage in an otherwise intact Renaissance palace, for instance, would hardly be conserved according to the solutions applied to a medieval castle ruin, but rather, because of the overall aesthetic effect, would be restored to accord with the adjoining bays.

A restoration can also go beyond the harmonizing or fillingin of gaps, to undo disfigurements from previous restorations. We must always be conscious of the danger that a new restoration can also interpret certain aesthetic and historical values in a biased manner or can even falsify, thus perhaps "disfiguring" the monument just as did an earlier restoration, the mistakes of which occasion the new interventions. A restoration can also once again reveal a monument that has been completely hidden, such as a classical temple beneath later construction or a medieval fresco under layers of later interior decorations.

With the re-exposure of a particular layer – such as a painting that is not visible but might in fact be extremely well conserved underneath several layers of lime - a critical question must always be addressed: What is the goal of the restoration of a monument that, as so often is the case, is composed of very different historical layers? As traces of its age and evidence of its history, all of these layers are valid parts of the monument. If we imagine that overtop the (to be exposed?) medieval painting there is a Baroque painting as well as one from the 19th century, that the (to be exposed?) original polychromy on a Romanesque crucifix has no less than eight subsequent polychrome schemes above it, that the (to be exposed?) Roman temple is integrated into a Byzantine church complex, then the problems inherent in all restoration work become clear. These issues become particularly difficult if, as is frequently the case, a restoration is based on an uncompromising orientation toward a genuine or supposed "original state" to which later historic layers are to be sacrificed without hesitation. In fact, after consideration of the results of detailed preliminary investigations, we can only proceed with the greatest caution in accordance with article 11 of the Venice Charter, which clearly dismisses the restoration practices of the 19th century that aimed at a "unity of style": The valid contributions of all periods to the building of a monument must be respected, since unity of style is not the aim of a restoration. When a building includes the superimposed work of different periods, the revealing of the underlying state can only be justified in exceptional circumstances and when what is removed is of little interest and the material which is brought to light is of great historical, archaeological or aesthetic value, and its state of preservation good enough to justify the action.

Extreme care is thus required; the goal of a restoration cannot be coordinated with a particular "historic state" if other "historic states" will thus be destroyed. On principle, the existing fabric, which has evolved over time, should be respected initially as the historic state. Only after thorough analysis will the removal of insignificant work to the advantage of materials of "great historical, archaeological or aesthetic value" appear to be warranted. Moreover, as important as an earlier state may be in comparison to later changes, it must also be so well preserved that its state of preservation (is) good enough to justify the action. The few particles of pigment that perhaps remain from the Romanesque polychromy on a wood sculpture no more justify the removal of a fully preserved Baroque paint scheme than the remains of a medieval ashlar stone wall justify demolition of an entire building that has evolved over the following centuries.

In a restoration project, preservation practice must also consider in particular the function of a monument and its relation to its surroundings, so that the components of a large monument complex – for example a monastery church with its decorative features – will not be "**restored asunder**". In a museum there might be good reason to re-expose the 15th century polychrome scheme on a late Gothic figure of the Virgin, removing later ad-

ditions to ultimately conserve its fragmentary state; but the same figure located on a Baroque altar as a devotional image must of course retain its Baroque polychromy. An altar from the 17th century in a space that was uniformly redecorated in the mid-18th century would not be re-exposed to its initial paint scheme but rather to the second or third version, the one which harmonizes with the overall space. Even a restoration measure that seems extremely simple and self-evident, such as removal and renewal of a yellowing layer of varnish in order to recover the aesthetic effect of an old painting or of marbling, must be questioned if by giving up the "age-value" of the varnish layer the relationship to other components of the work or to the remaining features of the monument is altered in the sense of "restoring asunder".

Given the diverse layers of a monument and the varying goals and prerequisites for a restoration project, excesses occasionally arise from a so-called "analytical restoration", which attempts to simultaneously preserve and exhibit all the historic states of a monument, at least in part. The Baroque facade of a palace on which painted architectural decoration from the Renaissance, deep medieval wall openings, remains of a re-exposed late Gothic painting, and remnants of Roman ashlar have all been made visible on a single bay becomes a mere preserved "specimen"; the same is true of a sculpture on which individual parts have been restored to different historic periods. As important and necessary as methodically sound preliminary investigations and documentation of previous historic states are in order to understand the essential character of a monument and to guide the interventions a restoration plan has to be oriented to the – evolved – historic and aesthetic whole of the monument. The safeguarding of evidence is necessary but the search for these traces cannot become an end in itself, determining the goal of a restoration.

Moreover, earlier historic situations can also be reconstructed on paper for scholarly publication. Regarding late Gothic fragments in a Baroque church interior, for example, there would be good reason to advise that they not be restored but rather covered up again, following conservation if necessary, in order not to endanger the aesthetic and historic whole of the monument. A "window to the past", based on what emerges in the course of a restoration, is only possible if it can be disposed in an inconspicuous place so that there is no negative impact of the kind discussed above. In general there must be a warning against the exaggerations of "analytical preservation", which represents a special kind of "restoring asunder".

This applies of course not only to individual restoration projects and to monuments with extensive decorative components but equally to restoration work within a historic district. The reexposure of (originally visible) half-timbering can represent successful restoration work when considered alone, but in the context of a square with only Baroque buildings or Baroque transformations of houses that are medieval in core, this intervention must be rejected as a disfigurement and disturbance of the square as a historic ensemble. Likewise we must reject the idea of restoring a streetscape that was transformed in the 19th century back to its medieval "original state"; monuments are not infrequently destroyed through such massive interventions based on an unprofessional understanding of restoration.

Whereas "analytical restoration", a sort of "specimen preparation" of historic states which is with good reason hardly practiced anymore today, adversely effects the coherent overall appearance of a monument and leads to loss of fabric in specific areas, the **idea of "restoring back"** to a single historic state, a concept that is always turning up anew, implies removal of entire layers of a monument. A constant conflict with the supreme dictate of preservation, the conserving and preserving of historic fabric, is pre-programmed, as is conflict with the restoration principle, already cited above in article 11 of the Venice Charter, of accepting the existing state and only re-establishing a particular earlier state in well-justified, exceptional cases.

Finally, attention should still be given to the general connection between every restoration project and the principles described for the conservation and repair of monuments (cf. p. 17/18). Conservation concerns must take priority, also in the difficult questions regarding the objective of a restoration project. Furthermore, in general a restoration is only appropriate if the necessary measures for stabilization and conservation are executed beforehand or at the same time.

The principles regarding general repair – limitation to the necessary and reversibility (see p. 26/27) – are also valid for restorations. However, since the removal of even an insignificant historic layer, permitted after thorough consideration, represents an irreversible intervention, in such cases a special measure of responsibility for the welfare of the monument is required. In article 11 the Venice Charter therefore demands the participation of several specialists to weigh all the possibilities: *Evaluation of the importance of the elements involved and the decision as to what may be destroyed cannot rest solely on the individual in charge of the work.*

A restoration that makes an effort to close and fill gaps that impair a monument's overall appearance can also be linked to the principle of repair using historic materials and techniques (see p. 18). This applies particularly to the preservation of historic buildings, whereas with individual works of art restorative completions must sometimes be executed in a different technique which can guarantee its own damage-free removal, based on the principle of reversibility. Of course, as with conservation work, not only the traditional but also the most modern restoration techniques (which cannot be covered individually here) must be employed where traditional techniques prove inadequate, as the Venice Charter says in article 10.

Renovation

To renovate (renovare) means to renew, and together with conservation and restoration it is a third widespread method in preservation, although it is not mentioned specifically in the Venice Charter. Renovation aims particularly at achieving aesthetic unity in a monument in the sense of "making new again" (the outer appearance, the visible surface of a monument, etc.) whereas "making visible again" by means of conservation work, cleaning or re-exposure in combination with completions still belongs in the realm of restoration.

The same conflicts concerning goals arise with the renovation of a monument which has multiple historical layers as have already been discussed in the context of restoration. Here, too, article 11 of the Venice Charter applies: renovation measures must accept in principle the evolved state of a monument with all its superimposed historic layers; no layer may be sacrificed to the aesthetic unity that is the goal of the renovation unless there is justification based on detailed investigations that carefully weigh the gains and losses.

Considering the priority of conservation — as the supreme principle that applies to all efforts in the field of preservation — and the principle of limitation to the necessary that is universally valid for the repair of monuments (see p. 17), it could perhaps be argued that conservation is always necessary, restoration is justifiable under certain conditions, but renovation, meaning as it does to renew and therefore to destroy, is not compatible with preservation's basic demands. Thus in place of Dehio's phrase "conserve, do not restore" do we rather have "conserve, restore where necessary, do not renovate"?

In practice historic fabric is in fact being destroyed even now to a shocking degree in the name of "renovation" and also in the course of many "restorations". The great danger with all renovation work lies in the fact that it is preceded by at least a thorough "cleaning" of the surface of the monument: complete removal and renewal of plaster; scraping off of earlier polychrome layers on an old altar in order to be able to renovate it "according to findings" or freely "according to the taste" of the authorities; stripping the layers off a figure and thereby destroying an essential part of the artistic and historical statement of a work of art; even total reworking of a weathered wooden or stone sculpture through "re-carving" until the object is falsified and devalued beyond recognition. Similarly, the sanding of a gravestone or a stone portal down to an undamaged, "healthy" layer is equivalent to the replacement of the original surface with a modern surface. These are all irreversible losses that remind us that the general principle of reversibility must be valid for renovation measures as well. In this context reference can also be made to the danger of renovation using inappropriate materials; dispersion paints, for example, have caused devastating damages on plaster or stucco facades or on stone surfaces.

In order to avoid such damages, the basic demand for historic materials worked in appropriate techniques must be met in renovation work in particular. Here is the opportunity to practice, learn and pass-down traditional technologies and the handling of traditional materials. Renovation is seen in contrast here to the complicated field of conservation and restoration which, as already described, cannot dispense with modern restoration techniques and newly developed resources. Furthermore in the case of renovation work repeated in ever-shorter intervals even well-meant and technically correct measures represent a significant danger to a monument's fabric if only because of the preparatory cleaning that affects the original fabric.

In spite of the indisputable dangers suggested here, a renovation project which pays heed to the principles of conservation can indeed be considered a preservation measure. Even if we constantly remind ourselves that the new layer resulting from a renovation cannot be a fully valid stand-in for the old fabric beneath it, with its special "age-value", in preservation practice there are indeed certain areas in which renovation is the only way possible to preserve the historic and artistic appearance of a

monument and to conserve the original layers below. A renovation measure is thus justified if it has a conserving effect itself or if conservation measures prove to be unfeasible. However, as with conservation and restoration, such a renovation must be understood as being "in service to the original", which should not be impaired in its effect and should be protected from further danger.

In order to preserve a monument severely worn, weathered or even soiled components may have to be renovated. For example, a new coat of lime paint could be applied over an older one that has been badly soiled by the modern heating system, without thus excluding the cleaning and conservation-oriented handling of an old coat of lime paint at a later point in time. This approach is often valid for the exterior of a building where worn and weathered original plaster and paint layers can only be preserved under a new and simultaneously protective coat; the new coat can be executed as a reconstruction of a historic scheme, as documented by investigative findings. Finally there are cases in which old plaster is so badly damaged by weathering and environmental pollutants that it can no longer be preserved with conservation measures and must be renewed. In this situation the painted decorative articulation on the exterior, only traces of which could still be detected, can be renovated – that is repeated - by means of a new coat of paint based on the investigative findings: the only possible way to pass on the monument's aesthetic appearance. As in the case of a restoration, of course very different possibilities can emerge from the investigative findings covering various layers. Should the plan for the exterior renovation based on these findings repeat the architectural paint scheme from the Renaissance, from the Baroque or from the Neo-Classical period, or should it take up the uniform ocher facade from the 19th century? Whether this involves a palace facade or the plain facade of a townhouse in the historic district of an old town, this decision can only be reached within the framework of the overall preservation plan after thorough analysis of the findings and the history of the building and in coordination with its surroundings.

Whereas the exterior renovation of a historic building has to be coordinated with its surroundings, an interior renovation must take into consideration the historic, aged surfaces of surviving elements, especially the "age-value" of all the decorative features; for instance the variable intensity of renovated painted interior surfaces must be of concern. As already suggested, the protective effect that a renovation measure can have must also be taken into account. Thus renovation as protection is a valid aim even in cases in which it conceals the "age-value" or an intermediate state that, from an aesthetic or historic standpoint, is worthy of preservation. An example is offered by new plaster on a Romanesque tower to protect weathering stone; although findings of minimal remnants may provide proof that there was indeed plastering in previous centuries, the new plaster replaces – in fact, disposes of –the "picturesque" and simultaneously "legitimate" version of the tower with its exposed medieval masonry, as it had appeared since the 19th century. The renovation of an outdoor sculpture of stone or wood by applying a new polychrome scheme based on investigative findings or in analogy to similar painted figures can also combine a change in the aesthetic appearance with a protective function.

It is no doubt self-evident that a renovation is out of the question for certain categories of monuments because only conservation and restoration work are within acceptable **limits**. Renovation must be rejected as a legitimate method for a great number of "art monuments" in particular, objects which in general can only be conserved or under some circumstances restored but which should not be renovated. These include paintings and sculptures or examples of arts and crafts work; the chalice in a church vestry would, for example, be impaired in its historic value by a complete re-gilding, an approach we would classify as renovation. This applies also to archaeological monuments and to fragments, which may be conserved and, as far as appropriate and necessary, restored; but a total "renovation" of these objects would destroy their character as evidence. The widely propagated methods of renovation are acceptable in preservation practice only if original fabric is no longer technically conservable and must be replaced or if old fabric can no longer be exposed to the effects of environment and use and must be covered over for protection. In both situations renovation work should be justified and supported by preservation-oriented preliminary investigations and by a preservation plan.

In the case of historic buildings, renovation work can also be appropriate in particular locations, for example in parts of a monument where there is no longer historic fabric to be protected because of previous extensive alterations, so that compatibility with the remaining monument fabric is the only point that must be heeded, or where preservation concerns for retaining historic fabric could not be made to prevail over other interests.

To conclude this attempt to differentiate between conservation, restoration and renovation work, it must be emphasized that together they constitute a graduated system of preservation measures; in other words, there are monuments that under certain circumstances should only be conserved but not restored, or that may be conserved and restored but never renovated. Furthermore, conservation, restoration and renovation measures are interconnected, so that, according to the circumstances, they may be carried out one after the other or simultaneously. The gilding of a plastered concave molding in an interior space can serve as an example. For the well-preserved components mere conservation is enough; in some places small gaps must be filled in and certain pieces "polished up" in order to more or less attain the overall aesthetic appearance of the conserved elements - hence, restoration; on one side of the room the gilding, severely damaged and to a large extent lost because of water penetration, must be renewed according to traditional gold leafing techniques – hence, renovation. In other cases renovation can even be considered a conservation measure, at least to a certain degree: for instance, partial re-exposure of one or more historic paint schemes within the framework of investigative analyses, consolidation (i. e., conservation) of the lathing, and complete renovation over an intermediate layer of one of the schemes. Underneath the new plaster all the historical layers remain better conserved (at least in the case of an exterior façade) than they would be if subjected to complete re-exposure, which is always combined with losses, and to subsequent conservation and restoration of the original fabric and the concomitant exposure to dangers of weathering.

Replacement and Completion of Components

Conservation, restoration and renovation measures give rise to different responses to the issue of completion and replacement: where only conservation of existing historic fabric is involved, there is in general no need for replacements; restoration on the other hand includes the closing of gaps and a certain degree of replacement, as would also be required under certain circumstances for a renovation. Regarding the exchange or replacement of elements, article 12 of the Venice Charter therefore maintains under "restoration" that Replacements of missing parts must integrate harmoniously with the whole, but at the same time must be distinguishable from the original so that restoration does not falsify the artistic or historic evidence.

In this context it must at first be pointed out that certain monuments are documents of history precisely in the fragmentary state in which they are passed down to us. The fragment of a gravestone, the torso of a figure, the remnant of a wall painting, the remains of a city wall or the castle ruin: these are only to be conserved and not – or only to a very limited extent – to be restored; replacements cannot be made without danger of falsification or impairment of their monument character. This is also particularly valid for small and even minimal replacements which are often completely unnecessary; arising only from an exaggerated urge for perfection, they needlessly destroy the "age-value" of a monument. An example would be the completely unnecessary "clearing up" of all minor damages in an ashlar stone facade using an artificial stone material, whereas the closing of a dangerous joint or a hole can indeed be necessary in order to avoid future major replacement of original materials. It is important to guard against excessive replacement on both a large and a small scale.

On the other hand, historic buildings, especially if they are in use, sometimes practically require repair work that involves considerable replacement. This is especially true for the large number of monuments that are used for residential purposes or as public buildings. The bay of an arcaded courtyard that has collapsed because of structural damages must be replaced; damaged building surfaces must be replaced, sometimes already for reasons of hygiene. The lost head of a statue of Nepomuk, saint of bridges, must be replaced if the figure is to fulfill its function in an understandable manner. In general an element of reserve must be maintained regarding replacements because the historic fabric should still "dominate" and should "carry" the added fabric, so that a monument does not appear more new than old. Moreover, the individuality and the artistic quality of a monument are of critical importance in the issue of replacement; in some circumstances they prohibit any replacement work other than a neutral retouching without which the overall appearance would be impaired. On the other hand, the original artistic plan sometimes makes completion of missing elements necessary, such as the filling in of a gap in a stucco ceiling, or closure according to the original design of the ground floor zone of a Neo-Renaissance facade which has been disfigured by the addition of storefronts, etc.

In principle a monument that has evolved over various epochs will be less in need of replacement than a "Gesamtkunstwerk" that was created according to a single coherent plan and that is unchanged in its appearance, where every gap is just as disturb-

ing as the gap in a painting. Finally, the filling in of a gap immediately after its badly felt loss is more compelling than the sometimes dubious practice of replacing details that have already been lost for decades or even centuries.

The arguments for and against replacement, dependent on various artistic, historic and also functional factors, can only be clarified after being given careful consideration in the restoration concept that is worked out for a specific case. The "how" of replacements, ranging from neutral retouching in a restoration project to partial copying or partial reconstruction, is of equal concern, raising questions as to whether a replacement should imitate the original or show its own signature, the latter being more or less perceived as a contrast to the original fabric. In this context the issue of the use of historic or modern materials and techniques also arises (see p. 18).

Reference must be made again to article 12 of the Venice Charter, already quoted above, according to which the replacements must integrate harmoniously with the whole but at the same time must be distinguishable from the original, always assuming that the replacement has not already gone so far as to represent a "falsification" of the original. This applies, for instance, to the various forms of retouching that are necessary for a restoration; according to the significance of the gap for the overall appearance of the object, completions range from merely a pigmented or neutral "tuning" to a "depiction" that derives from the existing composition but which on detailed inspection (or at least from close up) always should be recognizable as a replacement. On the other hand the completion should not give the effect of a strong contrast, which could only further impair the overall appearance of the work of art. In this sense a sculptural group in a park which is so badly damaged that its message is no longer comprehensible could be treated differentially: the detailed completion of small gaps would be consciously avoided, and only the elements that are important for an understanding of the monument would be replaced, in a reversible manner. Likewise, with a badly damaged gravestone or a wayside shrine the restorer would not replace fragmentarily preserved ornamental and figural elements which are still comprehensible but rather would complete the outer frame in a neutral manner and would renew (according to the old form) the cornice and projecting roof that are important as protection against weathering. With architectural fragments replacements which may be necessary for purely conservation reasons (such as a new covering) or for structural reasons (filling in of a crack) can also be kept neutral by using a material that sets itself apart somewhat from the historic fabric (for instance a different brick format or different method of setting stone). Thus the character of the architectural fragment is not falsified by an "imitation" that feigns another state of preservation or by a modish "contrast".

For completions that are necessary within the framework of normal repair work (see p. 18), the principle of the use of authentic materials in an appropriate, traditional manner is applicable, insofar as conservation reasons do not preclude it. The situation is different if new elements are necessary for functional reasons, for instance in the design of new fittings (modern forms and materials can of course appear next to the old) or the design of modern additions needed to extend the use of a historic building complex. Perhaps new choir stalls are needed in a church, or an addition must be made to the vestry – for such cases article

13 of the Venice Charter makes special reference to the caution and respect that must be shown for the preservation of existing fabric: Additions cannot be allowed except in so far as they do not detract from the interesting parts of the building, its traditional setting, the balance of its composition and its relation with its surroundings.

Furthermore, the "how" of replacements depends critically on the design and condition of the part to be completed as well as on our knowledge of the earlier situation. If a severely damaged, no longer repairable component is replaced, or an interrupted profile is filled in, or a volute gable that is only half preserved is completed, or the missing piece of a symmetrically designed stucco ceiling is replaced - then a replacement that copies the original is possible and for the most part even necessary. The appearance of the part that is to be replaced can be reconstructed using exact graphic or photographic materials that show its previous state. However, if there is no detailed knowledge of a component that has perhaps been missing for a long time, either no replacement should be attempted at all, or, as with retouching, the original should be replaced "neutrally" in the manner discussed above. With figural decoration, such as figures missing from a gable, even if there is some knowledge of the no longer extant predecessors this is perhaps the opportunity for modern sculpture, adapted of course to the surrounding context of the lost work.

Finally there are categories of monuments, particularly certain industrial monuments which are still in use, for which components must be exchanged continually in their original form and original materials A special form of continuous replacement, which could also be understood as continuous repair, involves the replacement of stones by the stonemason workshops of cathedrals (see p. 10). This involves the exchange of damaged elements, from crumbling ashlar to artistically designed components such as tracery and pinnacles, work that has been oriented over centuries to the form, materials and craftsmanship of the existing historic fabric. Recently on some such monuments less detailed or consciously more "coarse" work has been carried out; only on close observation is this perceived as a "modern" development.

Although in the end this constant exchange can approach a total renewal of the original stone materials, as a stonemason's tradition that has continued unbroken for centuries it is to be considered a necessary process which falls in between maintenance and repair. The procedure is more a routine safeguarding or restoration of the monument than it is a renovation, since the surface of a building is never totally reworked, even in larger sections. Such partial exchanges require not only traditional craft techniques but also as far as possible the use of material from the original stone quarry, or at least of a comparable stone with similar properties if the original is no longer available or is not resistant enough to environmental pollutants (and would therefore require another renewal after an unacceptably short interval).

Even with replacements that are correct in themselves in terms of craftsmanship, according to the principle of limitation to the necessary only deteriorated stones should be exchanged, whereas harmless small damages would not justify replacement of the original. The process of examining the stonework must also be seen in this context; it is a procedure that is often overlooked or not executed thoroughly enough by the cathedral

stonemasons precisely because replacement work is a traditional matter of course in their craft. The goal of this examination must be conservation in situ, particularly of richly designed components such as profiles, tracery, pinnacles, sculptural elements with their individual artistic signature or components with a key function in terms of a building's construction history. Thus the stonework would be preserved without any reworking that destroys not only the surface but also any surviving stonemason symbols and the traces of age that are caused by minor damages and weathering. An appropriate plan for safeguarding the stones must be developed on the basis of detailed conservation-oriented preliminary investigations.

Replacement by Copies

In some cases a study might show that figural elements on the exterior are already severely damaged and can only be saved from further deterioration through the production of replicas by the stonemasons and the transferal of the originals to the interior or their deposition in a secure place. The possibility of copies in the context of a restoration concept, not explicitly mentioned in the Venice Charter, was already critically commented in the Athens Charter, but not excluded for certain states of decay of monumental sculptures: With regard to the preservation of monumental sculpture, the conference is of the opinion that the removal of works of art from the surroundings for which they were designed is in principle to be discouraged. It recommends, by way of precaution, the preservation of original models whenever these still exist or if this proves impossible the taking of casts.

Replicating – i. e., making a copy of an existing original or of another replica – has a long tradition in art history, as illustrated by the "multiplication" of a famous pilgrimage painting or statue through countless small copies. But replication can only be considered a preservation measure if the copy is made in order to protect an existing original: the copy as a means of saving a monument. We must always remain conscious of the uniqueness of the original because, no matter how faithful in form, material and scale, a replica is always a new object and merely a likeness of the original with its irreplaceable historical and artistic dimension.

Production of a replica to replace an original, already referred to in the context of facade sculpture, can make it possible to remove and protect a work of art that can no longer be preserved on its original location, without thereby disrupting the meaning of a superordinate pictorial program of which it is a part; wellknown examples include the sculptures personifying the Church and the Synagogue on the cathedral of Strasbourg. To a certain degree such a replica can be understood as a partial replacement, a completion that serves restoration of the whole. This can also be a valid approach for sculptures in a park, each of which is an essential element, in its particular location, of an overall artistic concept; if leaving them exposed to continued negative environmental influences is no longer justifiable, the originals can be replaced by replicas while they themselves are given the protection provided by a museum-like environment. Depending on the individual case, a combination of measures may be sensible: replication of endangered components of a whole, or the completion and conservation of originals that are already so badly damaged or that have been so severely altered during earlier restorations that their non-reversible state of deterioration would make exhibition in a museum pointless. Given the abundance of affected monuments – just among stone sculptures, for example – it must be emphasized that this approach nonetheless has narrow applications: even if appropriate storage places are available, the deposited originals must undergo conservation treatment so that the decay does not continue, an aspect that is often overlooked. And which museums or depots should accept the stained glass from a cathedral that has been replaced by copies? With the exception of a few special cases, such windows should be saved and restored on their original location by means of suitable protective glasswork.

The testimonies in stone that characterize many cultural landscapes – the wayside shrines, stations of the cross, road markers, boundary stones, etc. – must be preserved in situ as long as possible using stone conservation treatments, even if we know these techniques are inadequate; if necessary they must be repaired by restorers. In these cases only the threat of total, nonstoppable loss can justify replacement of the original with a replica. A further issue is the extent to which a replica should duplicate the original in materials and technique: in each individual case careful consideration must be given as to whether the best solution calls for a handcrafted or sculpted copy in the original materials or for one of the modern casting techniques, some of which are very highly developed; of course a prerequisite for the latter is that no damage be done to the original during the process.

Apart from the examples mentioned here, the possibilities for saving a monument by bringing it into a protected space are very limited because normally a historic building cannot be moved, nor can it be replaced by a replica. However, there are **exceptional cases of replicas in order to save significant monuments endangered by modern mass tourism**. The paintings in the caves of Lascaux, unchanged over thousands of years, became threatened by the climatic fluctuations caused by visitors. Closure of the cave and construction of an accurately scaled replica nearby, which has enjoyed acceptance by tourists, has saved the original paintings. Another successful example is the "tourist's copy" of the famous Thracian grave of Kasanlyk in Bulgaria. This approach could serve as a model for other objects that are afflicted by mass tourism.

III. PRINCIPLES OF MAINTENANCE, REPAIR AND STABILIZATION, REHABILITATION AND MODERNIZATION, RECONSTRUCTION AND RELOCATION

Whereas in former times conservation and restoration were practiced primarily in the context of works of art and monuments of art and history, that is in the field of "classical" conservation/preservation, certain forms of maintenance, repair and stabilization, reconstruction and rebuilding have been practiced ever since there has been architecture. Therefore, as customary building methods they are not only of interest for the conservation/preservation of monuments and sites. But of course especially the practice of maintenance and repair plays a decisive role in this context, and many conservation principles could also be described under the heading "repair", even if the term "repair" is not explicitly named in the Venice Charter. Instead, under the heading "conservation" article 4 on the necessary maintenance of monuments and sites stands here in the first place: It is essential to the conservation of monuments that they be maintained on a permanent basis.

Maintenance

Entire cultural landscapes are perishing for lack of building maintenance, affecting the age—old traditional earthen architecture particularly dependent on constant maintenance as well as stone buildings of abandoned villages and towns. A lack, for various reasons, of the most basic maintenance work is a problem that is sometimes overlooked for so long in preservation

practice that expensive repairs become necessary. In such situations the question may arise of whether the damages are already so advanced that repair is no longer possible; then either the ultimate loss must be accepted or a drastic renovation and rehabilitation may have to be undertaken as the only alternative. In the following the repair of monuments is understood as a general term that may include measures of conservation and stabilization/consolidation, measures of restoration and renovation, and the replacement of missing elements (see also p. 14/15), whereas maintenance is used to mean limited, continuous preservation work.

In contrast to normal building maintenance, maintenance of historic buildings must always take into account the monument value of the fabric as well as the monument character of a structure. Under these conditions, proper maintenance can be the simplest and gentlest type of preservation because it guards against potential damages, especially those caused by weathering, and thus preserves monuments intact over centuries.

The maintenance of a historic building includes seemingly self-evident measures such as the cleaning of gutters or the renailing of damaged roof tiles, work that an owner can carry out himself and that wards off extensive damage. Obviously such maintenance work should be oriented to the existing materials and skilled craft techniques with which the historic building was erected. For maintenance measures such as plaster repairs or paint work on historic building components or on a facade, the

professional advice of a preservation agency is necessary. Proper maintenance is a direct outcome when a historic building is used appropriately (particularly in the case of residential use). The maintenance work carried out on individual historic buildings can add up to an old town that does not deny its age but is nonetheless very much alive, an old town that neither seems unnecessarily "spruced up" nor approaches a state of decay that might be picturesque but in fact is highly dangerous to the historic fabric.

Apart from buildings in continual use, some categories of monuments – from stone boundary markers to castle ruins – require only occasional maintenance measures, but the work must be done again and again; removal of plant growth that endangers the fabric of a ruin is one such example. Still other types of monuments such as historic parks with their paths and plantings require constant intensive care (cf. the section "Maintenance and Conservation" of the Florence Charter, p. 89). Certain industrial monuments – an old locomotive, a steamship or a power station, for instance – that are outdated technically and have become more or less museum objects must also be intensively "serviced", just as if they were still in use. On the other hand, our underground archaeological monuments could survive without any maintenance for centuries and millennia – if only they were protected from constant endangerment caused by human interference.

Special problems of maintenance are presented by the decorative features of historic buildings. There is a broad spectrum of possible damages resulting from neglect, from incorrect climate control in interior spaces, from improper handling of flowers or candles in churches, and even from cleaning or dusting undertaken in the name of monument care. For sensitive works of art even a seemingly harmless cleaning can have a damaging effect; in such cases maintenance should be entrusted to appropriate specialists only.

In this context reference can be made to a trend-setting model, of which little use has been made to date: maintenance contracts with restorers for outstanding decorative features which are particularly endangered, for instance for climatic reasons. Threats to works of art could thus be identified early; minor initial damages could be repaired year for year by a restorer without great expense. Over the long term the sum of simple conservation measures would make major restoration work superfluous - certainly the ideal case of maintenance but in fact nothing different than the usual care that every car owner bestows on his automobile in order to preserve its value. Yet the car is an item of daily use that can be replaced by a new one at any time, whereas the unique fittings of our historic buildings cannot be replaced; waiting until the next major restoration becomes due often means an irretrievable loss. With modifications this model could also be applied to maintenance contracts for the general preservation of historic buildings; restorers or craftsmen specialized in certain fields could look after certain historic buildings, of course in coordination with the state conservation services.

Just how seriously the issue of maintenance must be taken is shown by the **possibility of deliberate neglect**, whereby the conditions needed for a demolition permit are quite consciously attained. Finally, certain **precautionary measures against catastrophes and accidents** (such as systems for fire prevention,

theft security, etc.) could also be counted as part of the continual maintenance that guarantees the survival of a monument. Planning for such measures must, however, be coupled with appropriate preservation-oriented preliminary investigations.

Repair and Stabilization

Even if the boundaries between maintenance and repair are fluid, in general the repair of a monument would be defined as work which occurs at greater intervals and is often necessitated by inadequate maintenance. Individual components of a monument might be repaired, added to or replaced. We can even speak of continuous repair concerning the routine replacement of stones on certain monuments, as exemplified in particular by the stonemason workshops of medieval cathedrals (see p. 10).

A first principle of repair should be: Following thorough analysis all work is to be limited to the truly necessary! It is a mistake to assume that nowadays the higher costs for unnecessary work would anyway ensure that only necessary work will be done. Quite apart from increased costs, various factors – ranging from a change in use, an increase in the standards of the use, inadequate preliminary investigations, improper planning, inappropriate techniques, poor execution of work, or sometimes even a misguided "preservation" plan that inclines toward perfection – can also lead to an unnecessary, radical renewal after which practically nothing is left of the historic fabric.

Out of the principle of limitation to the necessary — in fact self-evident but nonetheless always in need of special emphasis — arises the principle that repair takes priority over renewal (that is, replacement of components): As far as possible repair rather than renew! In general repair is understood to mean the most careful and localized exchange of materials or building components possible.

Without going into the parallels to this principle in the field of art restoration, the principle of limitation to the necessary together with the principle of the priority of repair over renewal should be made clear to planners and especially to the craftsmen who carry out the work – craftsmen whose training today has accustomed them instead to building a new wall, replastering an old wall, carpentering a new roof frame, re-tiling a roof, making new floors, new windows and new doors, etc. The fact that preservation principles call for limitation to absolutely necessary measures, and thus for repair work that is adapted to the actual extent of damages – in other words stabilization and repair of the existing wall, refilling of the gaps in the old plaster, re-nailing of the roof covering, mending of the poorly closing window and the old door – often demands radical rethinking not only on the part of planners and craftsmen but in particular on the part of monument owners. In our modern throw-away society the abilities to repair materials and to use them sparingly – in earlier centuries a matter of course for economic reasons – are often underdeveloped or completely lost. Instead we produce not only consumer goods but to a certain degree even entire buildings on the assembly line, and after depreciation they are in fact "used up" disposable buildings. Everyone understands today that an old country cupboard, after its repair, satisfactorily fulfills its purpose as a cupboard and simultaneously represents a valuable original piece (paid for dearly on the art market), whereas a new cupboard made in imitation of the old has a comparatively low value. Quite apart from the issue of material value, a respect for the value of the original as historic evidence – respect which would call for repair instead of replacement of the historic stairs and the banister railing, refilling of gaps in plaster rather than complete renewal of the plaster – unfortunately cannot be taken for granted.

Just as the maintenance of a monument preserves original materials which have been worked in traditional techniques, the repair of a monument must be carried out in appropriate materials and techniques, provided that a modern conservation technique does not have to be used to ensure preservation. That means: **Repair using traditional materials and techniques!** A door, a window frame, a roof structure are thus best mended using an appropriate wood; old plaster is best supplemented in an analogous technique; likewise brick masonry is best repaired with bricks, a rubble wall with rubble stone, etc. Used as an addition to old plasterwork or as new plaster over old masonry walls, modern cement plaster for example is not only an aesthetic problem but also soon becomes a serious problem leading to further deterioration.

As far as possible all such repair measures are to be executed according to skilled craft techniques. Of course, in many cases modern hand tools or small electric machines can also be used to a reasonable extent, but the technical aids of the modern large-scale construction site should in general not be employed as they can only lead to unnecessary destruction in a historic building. In such cases sensitive skilled repair that is adapted to the old methods of construction and especially to the old surfaces is much more the issue than is the demand for imitation of historic techniques.

The principle of repair using traditional materials and techniques does not mean that in special cases the most modern techniques must be excluded, for instance if traditional repair cannot remedy the cause of damage or if repairs would destroy essential monument qualities whereas modern technology would guarantee greater success in the preservation of historic fabric. In certain cases the use of conservation-oriented technology for stabilization and consolidation is unavoidable.

In general the same preservation principles are also valid if, in addition to mere repair work, certain ruined components have to be completely exchanged: for example, use of traditional clay roof tiles which, aside from their aesthetic effect, possess different physical properties than substitute materials such as concrete tiles; use of wooden window frames instead of plastic ones, of window shutters instead of roller blinds; rejection of all the popular facade coverings of asbestos cement or plastic, etc. This means renunciation of modern industrial throw-away products that are propagandized daily in advertisements; aside from their other characteristics, these products can in fact only disfigure a historic building.

Another point that is of importance for all preservation work involves the **principle of reversible repair**: interventions necessary in connection with repair work such as mending and replacement of components should be "undoable". This principle, not directly addressed in the Venice Charter mostly involves approximate values – more or less reversible – rather than an "absolute" reversibility that can only rarely be guaranteed (see pp. 26-27).

But it is obvious that repair work which is limited to the truly necessary – the mending of a damaged stone stair step by means of a set-in piece, or the replacement of a ceiling beam – is certainly more easily reversible (for instance when further repairs or alterations become necessary in the future) than is the replacement in concrete of entire structural components or systems such as stairs, ceilings, girders or supports. Aside from the irretrievable losses that arise at the time such work is done, it would be much more difficult or almost impossible in the future to remove an entire concrete framework than it would be to exchange a few beams. Moreover, even without being demolished a totally "rebuilt" historic monument for which the principle of reversible repair has been neglected will lose its character as historical evidence.

Repair of monuments also encompasses technology for stabilizing and safeguarding monuments (see p. 18). Whereas repair work in general involves removal of damaged elements and replacement with new materials – resulting in a very careful exchange of materials or building components limited to the actual location of the damage - stabilization measures have a conservation-oriented objective that excludes as far as possible the replacement of materials or structural elements. Here, too, interventions in the original fabric cannot be avoided, for example in cases involving consolidation, hardening, impregnation, pinnings or injections of substances such as lime trass or cement suspensions. Often just such "invisible" interventions as these are rather massive. Techniques also include substitute structural systems and protective fittings against weathering, the effects of light, etc. Stabilization technology covers the broad spectrum of materials and constructions within a monument, from the conservation of pigments, paint layers and plasters to the structural securing of historic foundations, walls and load-bearing systems. Deciding whether and how repairs should be made or how a safeguarding measure should be carried out are certainly among the more difficult, specialized planning tasks for which the preservationist together with the engineer, chemist or restorer must work out a technical plan that accords with the nature of the monument. Without preliminary investigations to ascertain a building's particular historic features and to identify damages, qualified decisions in this field are not possible; moreover results will be random and hardly controllable for preservation purposes.

Rehabilitation and Modernization

In connection with the repair of monuments the term rehabilitation refers in current practice to more comprehensive and farreaching work than is involved in the forms of preservation-oriented repair described here. Today the term rehabilitation implies much more than "recovery": rather, it refers to work that is in part necessary but also is in part much too extensive and radical. Such work often results from the need to accommodate modern standards and provisions or to change a building's use; sometimes it is an outcome of revitalization measures that are not necessarily focussed on a building's historic fabric.

Rehabilitation work undertaken to accommodate a building to today's residential needs (for example through installation of a new heating system or renewal of electrical or sanitary systems) usually involves necessary modernization measures which go beyond purely preservation-oriented repair work. But the basic preservation principle is valid here, too: interventions in the original fabric made in connection with modernization work should be kept as limited as possible while nonetheless enabling reasonable further use. The more conscientiously the preservation-oriented preliminary investigations which are essential for such a project are carried out, the more favorable will be the overall circumstances for preservation. A preliminary investigation shows, for instance, where new ducts could or could not be laid, where later walls could or could not be removed without damage, how the structural system could be most carefully corrected, etc. This applies to historic dwellings, from farmhouses to palaces, as well as to ecclesiastical buildings. For churches, rehabilitation and "modernization" (typically installation of a heating system) often involve major interventions in the floor and thereby in a zone of important archaeological findings. It is obvious that the rehabilitation of public buildings can lead far beyond the repair that becomes necessary from time to time, involving massive interventions that are determined by the building's function and by special requirements and that are regulated by the relevant provisions and standards, including fire walls, emergency routes, new staircases, elevators, etc.

The term urban rehabilitation is used to refer to the rehabilitation of an urban quarter or an entire city. Extensive investigations of the economic and social structure can precede urban rehabilitation. In some circumstances they are based on general demands - for example for transformation into a "central business district" with department stores, for provision of parking buildings, etc. – that simply deny the given historic structure. Clearance urban renewal as practiced widely in the past decades has resulted in either total removal of all historic buildings and thus, from a preservation standpoint, has actually achieved the opposite of "rehabilitation", or it has involved extensive demolition and restructuring with the retention of a few historic buildings, which is likewise tantamount to far-reaching annihilation of the monument stock and the historic infrastructure. The readily used term "urban renewal" can signal "urban destruction" from a preservation perspective. By now clearance renewal has hopefully become the exception, and in many cases urban rehabilitation is being practiced "from house to house". In the best cases of urban rehabilitation repair in a preservation-oriented sense is being practiced according to the principles of repair already described (see pp. 17/18), and the necessary modernization work (see pp. 18/19) is carefully accommodated to the historic fabric. And of course the success of rehabilitation depends critically on a compatible use of the historic buildings.

As the most telling example of the "achievements" of modern technology, clearance renewal has proved that rehabilitation which is going to have a preservation orientation has need from the beginning of "gentle", more traditional practices. Modern technologies are undesirable if their implementation requires procedures according to the tabula rasa method, or if they cause enormous initial damages: for instance, the large opening made in the city walls (indeed demolition of half the structure that is actually intended for "rehabilitation") just in order to get the equipment "on the scene" and to work "rationally". Here in many cases it would be more advantageous economically as well to work from a preservation-oriented standpoint. Of course this

is valid for the principle of limitation to the truly necessary and thus for the principle of repair, emphasized here again: For the replacement of truly worn out historic fabric, the replacement of windows, etc. the principle of repair using traditional materials and techniques must be applied.

Reconstruction

Reconstruction refers to the re-establishment of structures that have been destroyed by accident, by natural catastrophes such as an earthquake, or by events of war; in connection with monuments and sites in general to the re-establishment of a lost original on the basis of pictorial, written or material evidence. The copy or replica, in contrast to the reconstruction, duplicates an original that still exists (see p. 15). Partial reconstruction as a preservation procedure has already been discussed under the topic of completions and replacements (cf. pp. 14/15).

Reconstruction is by no means expressly forbidden by the Venice Charter, as is often maintained; the passage in question in article 15 - All reconstruction work should however be ruled out a priori. Only anastylosis, that is to say, the reassembling of existing but dismembered parts, can be permitted - relates exclusively to archaeological excavations (see p. 24). In contrast the Athens Charter mentions the method of anastylosis, a special form of reconstruction (cf. also p. 19) in connection with ruins of all kinds: In the case of ruins...steps should be taken to reinstate any original fragment that may be recovered (anastylosis) wherever this is possible (Athens Charter, VI, Technique of conservation, p. 32). There are good reasons for the preference for anastylosis in archaeological conservation, although for didactic reasons archaeological preservation work sometimes does involve partial reconstructions for the interpretation and explanation of historic context (see p. 24 and Charter for the Protection and Management of Archaeological Heritage, art. 7 on reconstruction, p. 105). In another special field, historic gardens, reconstruction also plays a decisive role for obvious reasons (see Florence Charter, "Restoration and Reconstruction", art. 14, 17, p. 90). However, in general we can conclude that the authors of the Venice Charter, based on the charter's highly restrictive overall attitude also in regard to replacements (which according to article 12 should be distinguishable from the original), were very skeptical of reconstruction work.

The skepticism regarding any form of reconstruction is based first of all on the knowledge that history is not reversible: in certain circumstances a fragmentary state offers the only valid, unfalsified artistic statement. Indeed even a totally destroyed monument is evidence of history, evidence that would be lost in a "reconstruction" just as some castle ruins fell victim to "rebuilding in the old style" in the nineteenth century. Where such traces of history must be conserved, reconstruction is totally out of place. Furthermore, the monument that could be restored or renovated, or perhaps stabilized and repaired, must not be demolished and recreated as a reconstruction "more beautiful than before." But precisely this approach is being proposed daily. Thus the negative attitude to reconstruction is based on recognition of a genuine danger to our stock of historic buildings today, rather than merely on an aversion (found in preservation theory since the turn of the century) to 19th century "restoration" work and the disastrous damage it caused to original historic fabric, particularly on medieval monuments, through reconstruction trends based more or less on "scientific" hypotheses à la Viollet-le-Duc (cf. his definition of "restoration", p. 28).

A reconstruction that does not replace a lost monument but rather justifies and facilitates demolition of an existing monument is in fact a deadly danger for our stock of historic buildings. As far as "art objects" are concerned, it is the undisputed opinion of the public that a reconstruction cannot replace the original, but there is need of intensive public relations work to convince this same public that an object that is in use, such as Baroque church pews, similarly cannot be replaced by a replica; this lack of understanding often also applies to historic buildings. Thus, because of imagined or actual constraints on their use, houses and commercial buildings in particular are threatened by demands for total renewal instead of repair, for demolition and reconstruction "in the old form" – preferably then of course with a basement that never existed or with that inevitable underground garage. In this context the concept of "reconstruction" generally anyway refers only to the exterior, whereas the interior is reorganized and floor levels revised so that the "reconstructed" facade must be "lifted" because of an additional story. What remains of the monument are perhaps a few building elements taken up in the new structure as a "compromise": a stone with a coat of arms, an arcade, etc.

A reconstruction on the site of an existing monument, necessitating removal of the original monument, can thus be ruled out as a preservation solution. A modification of this approach dismantlement and re-building using the existing materials - also almost always leads to critical losses, although it is technically conceivable with building elements of cut stone or wood that are not plastered and have no fill materials. Log buildings can usually survive such a procedure with limited loss, if the work is done with care and expertise. With buildings of cut stone, the joints and the connections to other building components are lost; the loss of context is anyway a problem with every reconstruction that incorporates existing elements. Buildings with in-fillings or plastering, conglomerate structures, massive masonry, etc. usually forfeit the greater part of their historic fabric in such a project. Thus a reconstruction using existing material, through dismantlement and reassembly, can be successful only with very few objects. Prerequisites are preservationoriented preliminary investigations and an endangerment to the existing object which cannot be countered by any other means.

Despite the mentioned dangers, **under certain conditions reconstruction can be considered a legitimate preservation method,** as are conservation, restoration and renovation. In a preservation context reconstruction generally is related to the reestablishment of a state that has been lost (for whatever reason), based on pictorial, written or material sources; it can range from completion of elements or partial reconstruction to total reconstruction with or without incorporation of existing fragments. Within the framework of renovation projects (cf. p. 13) reconstruction of the original paint scheme – for instance re-establishment of a room's interior decoration or repainting of an exterior according to the findings of color research – can serve the overall aesthetic effect of the monument. The reconstruction of the historic fittings of a building, appropriate only in well-justified situations, can also be seen in this context. Finally, we

should not forget that the historic appearance of a building can be reconstructed in designs and models to provide a very useful foundation for deliberations on a conservation concept project although for good reasons the reconstruction may not be turned into reality.

A necessary prerequisite for either a partial or a total reconstruction is always extensive source documentation on the state that is to be reconstructed; nonetheless, a reconstruction seldom proceeds without some hypotheses. One of the criteria for the inscription of cultural properties in UNESCO's World Heritage List according to the Operational Guidelines of the Convention is that reconstruction is only acceptable if it is carried out on the basis of complete and detailed documentation on the original and to no extent to the conjecture. Thus, in connection with the inscription of cultural properties in the World Heritage List reconstructions are not excluded, but they require a sound scientific basis. The comments in article 9 of the Venice Charter are in a sense also valid for reconstruction: The process of restoration is a highly specialized operation. It is ... based on respect for original material and authentic documents. It must stop at the point where conjecture begins ...

The preceding discussion perhaps suggests that, although reconstruction is not "forbidden" and does not necessarily represent a preservation "sin" - the pros and cons must nonetheless be very carefully weighed. Just as a reconstructed completion that is based on insufficient evidence or questionable hypotheses in fact falsifies a monument, so an unverified "creative reconstruction" cannot really restitute a lost monument, not even formally - and certainly not in its historical dimension. In addition there is often confusion about the materials and the technical, skilled and artistic execution of the lost original. Under some circumstances a reconstruction requires, in addition to a sound scientific basis, execution in the original forms and materials, necessitating appropriate craftsmanship and artistic capabilities; of course any extant historic fabric should be integrated to the greatest extent possible. On principle, reconstructions that involve an original that was unaltered are more easily justified than reconstructions attempting to recreate an organic state that evolved over the centuries and thus can hardly be "reproduced".

In special cases a reconstruction may also be conceivable in order to elucidate a fragmentary monument, to re-establish the setting for extant fittings and decorative features or significant building components. In this context the roofing over of a masonry wall or other fragments through reconstruction work can sometimes also have advantages in terms of conservation. In order to tolerate this type of approach there must be no loss to the existing historic fabric, for instance through the replacement of original foundations or through other stabilization measures. Finally, a reconstruction may be justified within a historic complex or in a particularly uniform ensemble in which a gap (for whatever reason it has developed) reduces, impairs or disfigures the ensemble. A prominent example is the reconstruction in 1908 of the Campanile of San Marco in Venice, after its sudden collapse, because it was an indispensable element of the historic square.

In this context the **rebuilding after catastrophes and events of war** must also be addressed. Quite independent of preservation considerations, such rebuilding has seldom been a process of totally new beginnings, even in past centuries and millennia.

For reasons of economy, a frugal handling of available materials tended to pick up on what already existed; indeed this sometimes led to a "reconstructing" approach. A case in point is the cathedral of Orleans: destroyed by the Huguenots, it was rebuilt throughout the 17th and 18th centuries in Gothic style. Rebuilding has dimensions that mere reconstruction on a so-called scientific-intellectual basis does not have. The rebuilding of totally or partly destroyed historic buildings, in particular of monumental buildings which visually embodied the history of a city or a nation, can be an act of political self-assertion, in a certain sense just as vital for the population as the "roof over one's head". A prerequisite for rebuilding is of course the will to rebuild on the part of the generation that still feels the hurt of the losses. It is sometimes astonishing how structures that are rebuilt out of this motivation close the gap rendered by the catastrophe and are perceived as historic documents despite the irreplaceable loss of original fabric. This is particularly true if salvaged original fittings legitimize the rebuilding. It is also amazing how a rebuilt monument not only can fulfill its old function, but also can re-occupy the building's old position in history despite its mostly new fabric, for instance in the case of the Goethe House in Frankfurt. On the historic site of its old foundations can a building also integrate as far as possible the remnants of historic fabric that survived the catastrophe, as well as any salvaged fittings and decorative features. Besides, the rebuilt structure should represent the state of the historic building before its destruction, if the true intent of the rebuilding is to close the gap and not to embody the break in tradition that the catastrophe has caused.

A special situation involves the rebuilding of a structure in accordance with how it looked at an earlier time, as documented by architectural history research, rather than how it appeared before destruction. In this approach the "mistakes", alterations and additions of later periods are purified, and even salvaged fittings may be partly or completely sacrificed to the new plan in order to bring out the "original appearance" of the architecture once again. A process that is similar to restoring a building back to an earlier state (cf. p. 12) this approach to rebuilding is problematic from a preservation standpoint and only justifiable in exceptional cases.

The history of rebuilding in Europe after the Second World War – with the possibilities ranging from a totally new beginning according to the rules of modern architecture to cases in which reconstruction indeed duplicated the materials and forms of buildings before their destruction – cannot be described here. Even as we mourn what was lost, as preservationists we must now accept the different alternatives used in rebuilding after the war. Indeed we must already look at the results of rebuilding as historic evidence and admit that the buildings that were more or less faithfully reconstructed are the ones that have actually proved most successful in the long run: numerous rebuilt structures are now themselves recorded in monument lists as authentic historic buildings; even if they can never replace the partly or totally lost originals of the pre-war period they are a document for the time of their reconstruction. Opposition to any kind of reconstruction in view of the many historic buildings in ruins quite simply contradicted what had been the natural reaction over centuries: the wish to re-establish the familiar surroundings after a catastrophe, to put the usable materials together again - thus to

reconstruct. This basic human concern was not only valid for rebuilding in the period right after the war, but rather is equally true for rebuilding projects that for various reasons first became possible decades later, as for example the Church of Our Lady in Dresden. Beyond purely preservation aspects, the critical factor is the motivation that is behind the will to rebuild, marking the consciousness of loss; under such circumstances the idea of a time frame in which reconstruction is "still" allowed or "no longer" justifiable – as is sometimes suggested – is not relevant.

Sensible handling of the subject of reconstruction requires a correct understanding of monuments "in the full richness of their authenticity", as it says in the preamble of the Venice Charter. According to the document agreed upon at the Nara conference concerning authenticity (see pp. 118-119), in the evaluation of a monument not only the oft-evoked historic fabric but also additional factors ranging from authentic form to authentic spirit play a role. The true substance fetishist, with his "materialistic" understanding of the monument, can only confirm a continual loss of authentic fabric, given his perception of history as a one-way street of growth and decay; he can try to conserve the most recent state of a monument up to the bitter end. But the preservationist who, as a sort of lawyer for the historic heritage in a world that is changing as never before, tries to preserve at least a certain degree of continuity by saving historical evidence must be conscious of all the authentic values of a monument, including a "display" value that may be purely aesthetically motivated or the often neglected "feeling" value that perhaps tends toward reconstructions of a particular form or situation. In conjunction with the deep-felt human concern that arises over rebuilding after catastrophes, there is also always the additional issue of the perceptible presence of the past at the monument site, an issue that involves more than extant or lost historic fabric.

Relocation of Monuments

Part of the context of reconstruction is the relocation of monuments. In rare cases relocation can be possible technically without dismantling and rebuilding, for instance with small structures such as a garden pavilion which can be moved by inserting a plate underneath it. But with every relocation the critical relationship of the monument to its environment and surroundings is lost, together with that part of the building's historic message which relates to its particular location. In this context article 7 of the Venice Charter can also to be applied to relocations: A monument is inseparable from the history to which it bears witness and from the setting in which it occurs. The moving of all or part of a monument cannot be allowed except where the safeguarding of that monument demands it or where it is justified by national or international interests of paramount importance.

Thus from a preservation standpoint **relocation is only admissible if the monument can no longer be preserved at its original location**, if it cannot be protected in any other manner, if its demolition cannot be prevented. This situation becomes relevant not only in such cases as the removal of historic buildings for brown coal mining or the flooding of a village for a man-made lake, but also in the case of the approval of a new building on the site, regardless of why the permission was granted. There is even some danger that the mere possibility of the relocation of a monument to the next open-air museum will be taken as an excuse for the sought-after demolition. It is mostly rural houses and farm buildings that are relocated, not only for open-air museums but also out of private interests. The first requirement in such cases is to ensure that the historic building, though removed from its original surroundings, is at least recreted in a comparable topographical situation. In general relocation to a site that is as close as possible to the original location and as similar as possible to the original landscape situation is to be preferred.

Ultimately, the crucial requirement for a relocation is that the historic building can in fact be moved, i. e., that the original fabric (or at least the majority of the most essential components) can be relocated. Thus for purely technical reasons genuine re-

locations generally involve wooden buildings, in particular building types that were relocated at times in past centuries as well. The nature of their construction makes log buildings particularly suited for dismantling, transport and reconstruction. Under certain conditions buildings of cut stone can be relocated, stone for stone and course for course. In contrast the relocation of most other massive buildings is usually pointless, since a plastered rubblework wall can at best be rebuilt using parts of the original material. The same principles that apply for the repair of other historic buildings - regarding the use of authentic materials, techniques of craftsmanship and conservation treatments (cf. pp. 17-18) - are also valid for the repairs and completions that are inevitably necessary on a relocated building. Scientific documentation and recording of the original condition of a building are essential requirements for correct dismantling and rebuilding.

IV. PRINCIPLES FOR THE PRESERVATION OF ARCHAEOLOGICAL HERITAGE, HISTORIC AREAS (ENSEMBLES) AND OTHER CATEGORIES OF MONUMENTS AND SITES

The Venice Charter refers to all kinds of monuments and sites, as defined for instance in article 1 of the World Heritage Convention of 1972 as cultural heritage (see p. 8). On the basis of this Charter other charters and principles were later developed for individual categories of monuments and sites. The Venice Charter itself devoted an entire article to only one classical monument category, namely to archaeological heritage (see article 15 on "Excavations"), for which the ICOMOS General Assembly in Lausanne in 1990 ratified the Charter for the Protection and Management of the Archaeological Heritage (see pp. 104-106). For underwater archaeology this Charter was completed by the Charter for the Protection and Management of Underwater Cultural Heritage (see pp. 122-124), which was ratified in 1996 by the ICOMOS General Assembly in Sofia. In the following no further reference will be made to the framework of underwater archaeology described in detail in that Charter.

Archaeological Monuments and Sites

Archaeological monuments and sites are those parts of our cultural heritage that are investigated using the methods of archaeology; mostly hidden in the ground or underwater, they are an irreplaceable source for thousands of years of human history. Archaeological heritage conservation is understood here as a "safeguarding of traces", and not as "treasure-digging". A strict differentiation between archaeological and architectural monuments does not always seem appropriate, since archaeological monuments in fact frequently consist of the vestiges of buildings that are hidden under the earth: structures of stone or wood, remnants of walls, colorations in the ground, etc. as well as the re-

mains of their former fittings. Indeed to a certain extent an archaeological excavation can turn an archaeological monument back into an architectural monument, for instance if the remains of a ruin within a castle complex are exposed and subsequently must be conserved. On the other hand many architectural monuments and even urban districts are simultaneously archaeological zones because of the underground remains of predecessor buildings.

Since archaeological monuments of different epochs are hidden beneath the ground or under water, special survey, excavation and documentation methods have been developed to record and investigate them. Survey methods include field inspections and the collection of materials which make it possible to designate archaeological zones (topographical archaeological survey), aerial photography, and the recently developed geophysical survey methods (magnetometry). These survey methods, which do not need to be described here in any more detail, are already tied to the first basic requirement, or principle, in the field of archaeological heritage preservation: A survey of the archaeological monuments of a country using these methods must be carried out as accurately and comprehensively as possible. As in all fields of preservation, a survey of the existing stock is a prerequisite for its protection.

Of course the general principles of the Venice Charter are also valid for the particular circumstances of archaeological heritage preservation. Archaeological monuments and sites should be preserved in situ and as intact as possible; they must be maintained, conserved, and under certain circumstances restored. Article 15 of the Venice Charter deals separately with archaeology: Excavations should be carried out in accordance with scientific standards and the recommendation defining international prin-

ciples to be applied in the case of archaeological excavation adopted by UNESCO in 1956. Ruins must be maintained and measures necessary for the permanent conservation and protection of architectural features and of objects discovered must be taken. Furthermore, every means must be taken to facilitate the understanding of the monument and to reveal it without ever distorting its meaning.

According to the above-mentioned UNESCO Recommendation on International Principles Applicable to Archaeological Excavations, passed by the General Conference in New Delhi on 5 December 1956, the best overall conditions for the protection of the archaeological heritage call for the coordination and central documentation of excavations by the relevant public authority of each country in conjunction with support of international collaboration; further, unauthorized digs and the illegal export of objects taken from excavation sites should be prevented. Particular value is placed on preservation of the findings from excavations and their retention in central and regional collections and museums in the territory of the excavation, or in collections directly connected to important excavation sites. However, the recommendation from 1956 does not yet emphasize clearly enough that excavated findings, just as fortuitous findings, are always only part of a monument which embodies multifaceted historical relationships; the goal of modern preservation practice as a comprehensive "safeguarding of traces" is to preserve this whole to the greatest extent possible. But the long-antiquated idea of archaeology as mere "treasure digging" even seems to lurk behind the relevant paragraphs in some of our modern monument protection laws.

Another critical criterion for the practice of modern archaeological heritage preservation is missing from the recommendations of 1956: the differentiation between excavations carried out for purely scientific interests and the unavoidable emergency or salvage excavations which in many countries have become the rule because of threats to archaeological monuments on a scale that was barely conceivable in previous decades. It is not only private construction projects that are repeatedly causing destruction of unrecognized archaeological monuments, but also a general "upheaval of land" in the course of public works, gigantic architectural and civil engineering projects, new transportation facilities, and especially intensive agricultural use with its concomitant land erosion. At least in conjunction with preservation projects involving historic buildings efforts can be made to avert interventions in the ground; a typical example would be leaving the "terra sancta" under the floor of a religious building untouched – ground which is almost always of interest archaeologically but is often endangered by installation of modern heat-

In light of the ubiquitous threats that force a profusion of emergency excavation and salvage operations in many countries – in such numbers that they can hardly be executed according to the strict scientific standards of modern archaeological practice – the **Charter for the Protection and Management of the Archaeological Heritage (Charter of Lausanne)** defines comprehensively for the first time the conditions, goals and principles of archaeological preservation. The validity of the most important principle of conservation – as far as possible monuments are to be preserved intact at their original site – for archaeological monuments as well is emphasized in article 6 in partic-

ular: The overall objective of archaeological heritage management should be the preservation of monuments and sites in situ, including proper long-term conservation and curation of all related records and collections etc. Any transfer of elements of the heritage to new locations represents a violation of the principle of preserving the heritage in its original context. This principle stresses the need for proper maintenance, conservation and management. It also asserts the principle that the archaeological heritage should not be exposed by excavation or left exposed after excavation if provision for its proper maintenance and management after excavation cannot be guaranteed. The latter principle is well worth heeding, considering the zeal – on an international level – with which archaeological sites are laid bare, only to be left exposed to the disastrous effects of tourism without proper maintenance, conservation and management.

The Charter of Lausanne also clearly differentiates between unavoidable emergency measures precipitated by threats to a site and excavations undertaken for purely scientific reasons; the latter can also serve other purposes such as improvement of the presentation of an archaeological site. According to article 5 Excavation should be carried out on sites and monuments threatened by development, land-use change, looting or natural deterioration. When an archaeological site is doomed because all possible protective measures have failed or could not be implemented, then of course its excavation must be as thorough and comprehensive as possible. In comparison, excavations for purely scientific purposes of archaeological evidence that is not endangered must be justified in detail; these are explicitly designated as exceptional cases in the Charter of Lausanne: In exceptional cases, unthreatened sites may be excavated to elucidate research problems or to interpret them more effectively for the purpose of presenting them to the public. In such cases excavation must be preceded by thorough scientific evaluation of the significance of the site. Excavation should be partial, leaving a portion undisturbed for future research. Thus interventions in archaeological sites which are not endangered or which can be protected despite endangerment by the available legal resources should be avoided as far as possible, except for special cases in which specific scientific problems are to be explored by excavations that are limited to part of a site or a scientifically and didactically motivated presentation area for visitors is to be developed. The prerequisite for these special-case excavations is always that the exposed site can in fact be conserved and permanently preserved. If the requirements for the continued maintenance of an archaeological site are not met, then such "exposures" can on principle not be justified.

The above-mentioned limitation on excavations of non-endangered archaeological sites to those that can be warranted not only under scientific but also under conservation standpoints should anyway be an outcome of the most reasonable application of limited resources: Owing to the inevitable limitations of available resources, active maintenance will have to be carried out on a selective basis, according to article 6 of the Charter of Lausanne. Moreover, a crucial reason for exercising the greatest possible restraint is the fact that every excavation means destruction: As excavation always implies the necessity of making a selection of evidence to be documented and preserved at the cost of losing other information and possibly even the total destruction of the monument, a decision to excavate should only be

taken after thorough consideration (article 5). With excavations that are motivated purely by research interests it is sometimes possible to limit interventions significantly when the objectives can be met without employing the usual horizontal-stratigraphic methods but rather by excavating a narrow field; for instance one sector of a ring wall could yield all the necessary information. In this way the archaeological monument is mostly undisturbed and is preserved in situ, thus remaining available for later investigations with improved scientific methods. The UNESCO recommendation from 1956 had already made a proposal in this sense: Each Member State should consider maintaining untouched, partially or totally, a certain number of archaeological sites of different periods in order that their excavation may benefit from improved techniques and more advanced archaeological knowledge. On each of the larger sites now being excavated, in so far as the nature of the land permits, well defined "witness" - areas might be left unexcavated in several places in order to allow for eventual verification of the stratigraphy and archaeological composition of the site.

In this context the Charter of Lausanne also refers in article 5 to an important basic principle that must be applied to excavations of non-endangered sites, a principle that moreover encourages the use of non-destructive sampling methods in place of total excavations: It must be an over-riding principle that the gathering of information about the archaeological heritage should not destroy any more archaeological evidence than is necessary for the protectional or scientific objectives of the investigation. Non-destructive techniques, aerial and ground survey, and sampling should therefore be encouraged wherever possible, in preference to total excavation.

The principles that are valid for preservation in general also apply to the preservation of archaeological sites and artifacts. The often very fragmentary condition of the objects makes it possible to limit work more to conservation instead of restoration or renovation; completions are carried out either sparingly or not at all. Other problems of repair and rehabilitation which arise with architectural monuments, especially in conjunction with modern uses of historic structures, are largely unimportant in archaeological heritage management. When the completion of an authentic fragment appears to be appropriate, the work should be distinguishable, for instance by means of a dividing joint or layer or by a different format in the brick. Additional layers of masonry, for instance to make the ground plan of an early medieval church visible once again, can also serve as protection for the original foundations that were discovered through excavation; however they should not replace the originals. In fact some excavation sites with their neglected, gradually disintegrating remnants of walls would indeed be much better off if they were concealed once again under a protective layer of earth.

Archaeological monuments are often presented to the visitor as "visible history" with the help of partial or total **reconstructions**, a legitimate approach as long as history is not falsified and the original remnants – the actual monument – are not removed. Indeed in some circumstances reconstructions, which always should remain recognizable as such, can be erected at another location so that they do not endanger the existing remains. In this context article 7 of the Charter of Lausanne states *Reconstructions serve two important functions: experimental research and interpretation. They should, however, be carried out with*

great caution, so as to avoid disturbing any surviving archaeological evidence, and they should take account of evidence from all sources in order to achieve authenticity. Where possible and appropriate, reconstructions should not be built immediately on the archaeological remains, and should be identifiable as such.

A special variant of reconstruction, anastylosis, a method developed in the field of classical archaeology but also applicable for partially destroyed monuments of later epochs (cf. p. 19) is referred to in article 15 of the Venice Charter: All reconstruction work should however be ruled out a priori. Only anastylosis, that is to say, the reassembling of existing but dismembered parts, can be permitted. The material used for integration should always be recognisable and its use should be the least that will ensure the conservation of a monument and the reinstatement of its form. According to this method the fragments of an ashlar stone building - for instance a Greek temple - found on or in the ground could be put together again; the original configuration is determined from the site and from traces of workmanship, from peg holes, etc. If extant, the original foundations are used in situ. Such a re-erection demands preliminary work in building research; an inventory of all the extant building components, which must be analyzed and measured exactly, results in a reconstruction drawing with as few gaps as possible so that mistakes with the anastylosis can be avoided. A technical plan must also be worked out to preclude damage during re-erection and to address all aspects of conservation, including the effect of weathering. Finally, the didactic plan for an anastylosis must be discussed, with concern also being given to future use by tourists.

In order to be able to show original fragments – a capital, part of an entablature, a gable, etc. – on their original location and in their original context as part of an anastylosis, there is of course a need for more or less extensive provisional structures. The fragments in an anastylosis should only be conserved and presented as originals; they are not completed as in a restoration or embedded in a partial or complete reconstruction. The limits of anastylosis are reached when the original fragments are too sparse and would appear on the auxiliary structure as a sort of "decoration". Anastylosis, an approach which can indeed serve to protect original material in certain circumstances, also illustrates the special role of the fragment in archaeological heritage preservation.

Finally reference must be made again to the necessity of a comprehensive record and inventory of archaeological monuments as a basic requirement of archaeological heritage preservation, expounded in article 4 of the Charter of Lausanne: The protection of the archaeological heritage must be based upon the fullest possible knowledge of its extent and nature. General survey of archaeological resources is therefore an essential working tool in developing strategies for the protection of the archaeological heritage. Consequently archaeological survey should be a basic obligation in the protection and management of the archaeological heritage. According to article 5 this should include appropriate reports on the results of archaeological excavations: A report conforming to an agreed standard should be made available to the scientific community and should be incorporated in the relevant inventory within a reasonable period after the conclusion of the excavation - quite an understandable wish given the many scientific reports that do not appear within a "reasonable period" but are very long in coming.

Moreover, because of the almost unavoidable profusion of emergency and salvage excavations with their immense "publication debts" and the excessive stockpile of artifacts, it has to be clear that it is now more important than ever to protect our archaeological monuments from intervention. In the final analysis an excavation without a subsequent scholarly publication and without conservation of the findings is totally useless.

The importance of comprehensive documentation and scientific publication of all work undertaken in archaeological heritage management must be emphasized again and again. Documentation and publication are absolutely essential because every excavation is in fact an irreversible intervention that partially or totally destroys the archaeological monument; indeed in many cases after completion of an excavation the monument, apart from the artifacts, exists only in the form of a scientific description and analysis, and no longer in the form of undisturbed historic fabric. From this situation comes the principle: no excavation without scientific documentation. In a certain sense the scholarly publication, which conveys all the phases of work and thus makes the archaeological monument virtually re-constructible in conjunction with the salvaged artifacts, has to replace the original monument. The documentation for an excavation must include all the overlapping layers from various epochs and different building phases; all traces of history must be given serious consideration. A particular historic layer should not be studied and others neglected in the documentation; for instance the classical archaeologist cannot heedlessly remove Byzantine remains or the prehistoric archaeologist neglect the remains from medieval times that would be of interest to an archaeologist of the Middle Ages.

The obvious care that must be given to **conservation of the excavated artifacts** from all historical epochs must also be seen in this context. The conservation of archaeological findings – the reassembling of ceramic shards, the preservation of wooden materials found in the damp earth or of a practically unrecognizably rusted metal artifact which would rapidly and completely decay without conservation treatment – is also a prerequisite for correct publication of the excavation. Subsequently, after their scientific treatment, groups of artifacts that belong together should not be unnecessarily split up and distributed among various collections, but rather should be housed in a nearby museum of the particular region so that the crucial relationship to the original monument site is at least to some extent preserved.

Historic Areas (Ensembles)

The Venice Charter defines monuments and sites in the widest sense and refers explicitly not only to the individual monument but also to its surroundings: It says in article 1 *The concept of a historic monument embraces not only the single architectural work but also the urban or rural setting...*, which together with

article 6 (Wherever the traditional setting exists it must be kept) can be understood as a reference to a certain ensemble protection. In the Venice Charter ensemble protection did not yet play the decisive role which it received in the theory of conservation/preservation in connection with the European Heritage Year of 1975. Furthermore, there is article 14 on "Historic Sites" which points out that when it comes to conservation and restoration the same articles of the Venice Charter apply as for single monuments: The sites of monuments must be the object of special care in order to safeguard their integrity and ensure that they are cleared and presented in a seemly manner. The work of conservation and restoration carried out in such places should be inspired by the principles set forth in the foregoing articles. Here with "sites of monuments" not only archaeological sites are meant, but also groups of buildings, ensembles, small and large historic areas, historic villages and towns. The fact that the authors of the Venice Charter were very much aware of the problem concerning historic centers is shown by the "Motion concerning protection and rehabilitation of historic centres" adopted in 1964 by the same International Congress of Architects and Technicians of Historic Monuments. However, in view of the sparse reference in the Charter to this important category of monuments and sites the Charter for the Conservation of Historic Towns and Urban Areas (Washington Charter 1987, see pp. 98-99), adopted by the ICOMOS General Assembly in Washington, was meant to be understood as a necessary step for the protection, conservation and restoration of such towns and areas as well as their development and harmonious adaptation to contemporary life. Apart from various other international papers this was preceded by the UNESCO Recommendation Concerning the Safeguarding and Contemporary Role of Historic Areas (Warsaw - Nairobi 1976).

Other Categories of Monuments and Sites

As another necessary addendum regarding categories of monuments not expressly mentioned in the Venice Charter has to be understood the Florence Charter of 1981 (see pp. 89-91) on the preservation of historic gardens: As monument, the historic garden must be preserved in accordance with the spirit of the Venice Charter. However, since it is a living monument, its preservation must be governed by specific rules which are the subject of the present charter (Florence Charter, article 3). The Charter on the Built Vernacular Heritage (see pp. 150-151) ratified by the ICOMOS General Assembly in Mexico in 1999 is also to be understood as an addition to the Venice Charter. Furthermore, in the years to come we can expect from ICOMOS and its International Scientific Committees charters on the topics of cultural landscapes and cultural routes, perhaps also on the current topic of "Modern Heritage", the heritage of the 20th century, whose documentation and preservation are highly demanding.

V. THE OPTION OF REVERSIBILITY

The term reversibility, not mentioned even once in the Charter of Venice, has in the meantime become common in connection with conservation/restoration/renovation issues and the conservation/preservation measures of all kinds mentioned in the preceding chapters. Of course, our monuments with all their later changes and additions which indeed are to be accepted on principle as part of the historic fabric are the result of irreversible historic processes. Their "age value" is also the result of more or less irreversible aging processes. It can hardly be a question of keeping there "natural" aging processes (catchword "patina") reversible, of rejuvenizing the monument, of returning it to that "original splendor" that is so fondly cited after restorations. Rather it is only a question of arresting more or less "unnatural" decay (for example the effects of general environmental pollution), of warding off dangers, and simply of keeping all interventions that are for particular reasons necessary or unavoidable as "reversible" as possible. "Reversibility" in preservation work as the option of being able to reestablish – in as unlimited a manner as possible – the previous condition means deciding in favor of "more harmless" (sometimes also simply more intelligent) solutions and avoiding irreversible interventions which often end with an irreversible loss of the monument as a historic document.

In this sense we can speak of a reversibility option within the context of several principles of modern preservation laid down in the Charter of Venice. Regarding the maintenance of monuments there are measures that must be repeated constantly and thus to a certain degree are reversible. It can be assumed that a certain degree of reversibility is guaranteed regarding repair measures as well, if the important principle of repairs using traditional materials and techniques is observed. For instance in case of repairs that become necessary again in the future or in connection with use-related changes, repair work that is limited to the strictly necessary is more likely to be reversible than would be the renewal of entire components using the arsenal of modern materials and techniques. This is not to mention the fact that a historic building, rehabilitated "from top to bottom", for which every principle of repair has been disregarded, can completely loose its significance as historic evidence without demolition taking place. Insofar as traditional repairs are limited to the replacement of worn-out old materials with new materials only on truly damaged places, the reversibility option refers essentially to preservation of the "ability to be repaired" (repeated "reparability"). In this sense the replacement of stones by the cathedral stonemason workshops, seen as "continuous repair" (cf. p. 17), can be understood as a "reversible" measure (insofar as it keeps its orientation to the existing forms, materials and craftsmanship), although the continuous loss of material is naturally an irreversible process.

The principle of reversibility will also be very helpful in judging a rehabilitation measure. For instance, the partition wall necessary for use of a building can be "reversibly" inserted as a light construction without massive intervention in the wall and ceiling, and thus could be removed during future alterations without difficulty. The same applies to certain necessary interior fittings in historic spaces (for example sanitary modules) that also can

be made reversible like a "piece of furniture". In this context the preservationist must always pose critical questions: why must a roofing structure be converted into a "coffin lid" of concrete that burdens the entire structural system of a building, why is the entire foundation of a church to be replaced irreversibly in concrete? Is this intrusion in the historic fabric from above or below really necessary for preservation of the building? Is there not a much simpler, less radical, perhaps also essentially more intelligent solution? From a larger perspective the new building which accommodates itself within a gap in the property lots of an old town undergoing urban rehabilitation - a modest solution reduced to the necessary - will also appear more reversible than a structure such as a parking building or a high-rise that irrevocably breaks up the urban structure by extending over property lots, causing damages that from a preservation standpoint can hardly ever be made good again.

Also in the field of modern safety technology (technology that for conservation reasons is indispensable for the preservation of materials and structures), where interventions such as fastenings, nailings, static auxiliary structures, etc. are often "invisible" but nonetheless serious, the principle of reversibility can be introduced at least as a goal in the sense of a more or less reversible intervention, for example an auxiliary construction, removable in the future, which relieves historic exterior masonry walls or an old roof structure. The issue of more or less reversibility will naturally also play a role in the weighing of advantages and disadvantages of purely craftsman-like repairs as opposed to modern safety techniques, quite apart from the questions of costs, long-term effects, etc. For example, is the consolidation of a sandstone figure using a silica acid ester dip or an acryl resin full impregnation simply unavoidable because there is no other alternative or, instead of adhering to a – more or less - hypothetical "reversibility" should we talk here about various degrees of "compatibility". In the case of a compatible (that is, adapted in its nature to the original material) "nondamaging" substitute that serves to stabilize and supplement when used in conservation or restorations work, we can at any rate more likely assume that this material can to a certain degree be employed "reversibly".

With all conservation measures on a work of art – stabilization of the paint layers on a panel painting, consolidation of a worminfested wooden sculpture, etc. - the materials that are introduced should at least be examined regarding their relative reversibility; sometimes a cautious "bringing-it-through" with interventions that are perhaps less permanent but to a certain degree reversible should be given preference. This would also depend on the use of materials for which a kind of "antidote", in the sense of the reversibility of the procedure, is always held in readiness. Thus if the surface of a monument possesses several "finishes", we must be conscious that every "re-exposure" of an older finish means the – irreversible – removal of a younger but likewise "historic" finish; that re-exposure is not in fact a foregone conclusion but rather is only justified after a comprehensive analysis which favors it as having "great historic, archaeological or aesthetic value", as the Charter of Venice says. Even such a "harmless" measure as the removal of a yellowed varnish layer, which in the sense of a cyclic renewal may seem to be "reversible" because varnish is replaced again and again by varnish can be connected with irreversible damages to the paint layer. The demand for reversibility is valid moreover for many restorative additions. With appropriately cautious treatment of the transition "seam" between the new and the historic fabric, we can speak here of an almost complete reversibility, for instance the closure of a gap in a painting using watercolor retouching that can easily be removed. Just as we can speak about reversibility in the sense of "ability to be repaired again" (see p. 18) here we are concerned with the option of being able to conserve or restore again with as little damage as possible.

It is no coincidence that the "reversibility debate" was inaugurated primarily in the literature on the restoration of paintings: presumably painting restorers have always been vexed by the irreversible interventions of their colleagues in the near and distant past. But even if restoration history is in many cases a downright alarming process, it does not allow itself to be reversed in the sense of a "de-restoration". The restorer will hopefully be careful about removing retouchings and additions that already are a part of the "historic fabric" as if they had been applied earlier as "reversibly" as we can expect today from such a work work which should at least be left open for possible corrections by future colleagues who are perhaps equipped with better technical possibilities and new knowledge. In addition to the reversibility option suggested for conservation and restoration work, this approach can eventually also be helpful in renovations. Renovations of surfaces are perhaps the sole means not only to pass down the architectural appearance of a monument but also to conserve the surviving historic fabric under a new "wearing course" as it were - provided that this wearing course (for instance a new coat of paint according to historic evidence) is reversible; that is a renewed re-exposure of the original would be just as possible as renewed renovation (the ability to be renovated again).

Even where the principle of reversibility is legitimately brought into play, it is never a matter of a total reversibility but rather of reversibility options, of a more or less genuine reversibility, if the work is not absolutely irreversible but rather remains "to a certain degree" reversible. Thus there is a clear discrepancy between theoretically conceivable and practically realizable reversibility. A very helpful aim for preservation practice seems to be in this context the possibility of repeating certain measures, thus the already mentioned ability to repair again, to conserve again, to restore again, to renovate again, to add again: a monument that is to survive the coming centuries in spite of its increasing "age value" is never repaired and restored "once and for all", as one must sometimes fear given the wild perfectionism of our time, which naturally hasn't skirted the field of preservation.

Finally, the issue of reversibility is naturally to be subordinated, as are other preservation principles as well, to the principle of conservation as the highest tenet; in other words, in preservation there must also be deliberate or unavoidable irreversibility, the irreversible intervention as the only possibility for preserving a monument. However, decisions for reversible or irreversible measures naturally presuppose thorough preliminary investigations; investigations involving restoration findings as well as building research, the "art" of which should be to manage themselves with interventions which are as slight as possible. Moreover, these investigations should actually be repeatable in the future on the object, in order to be able to control results and eventually to make corrections.

VI. A PLURALISTIC APPROACH TO PRESERVATION 40 YEARS AFTER THE VENICE CHARTER

Thirty years after the Venice Charter ICOMOS published its Scientific Journal 4 (The Venice Charter/La Charte de Venise 1964-1994). The Journal also contains the summary report of the International Symposium connected with the 9th General Assembly of ICOMOS in Lausanne, where a working group dealt with the actuality of the Venice Charter. This report underlines the necessity to create a working group on the Charter of Venice doctrine, theory and commentaries and comes to the conclusion: We can affirm that the Charter of Venice is a historical monument which should be protected and preserved. It needs neither restoration, renewal, nor reconstruction. As for the future, it has been suggested that a commentary or a parallel text should be drawn up to present interdisciplinary regional and national perspectives, with the object of finding a better solution to the needs of the new generations and the coming century. The Charter should be considered in a philosophical and open perspective rather than in a narrow and technical one. The same publication also contains a review of the Venice Charter, written as early as 1977 by Cevat Erder: Recent reactions ... show that the Venice

Charter does not completely meet the demands of contemporary society. Proponents and critics of the Charter may be grouped in general into three separate camps. One defends the Venice Charter as it stands. In this camp are also those who defend the Charter with the condition that regional charters form an adjunct to the present document. The second proposes changing those articles which fail to meet current demands and introducing supplementary articles to complete it. The third insists that a new charter be prepared to replace the Venice Charter altogether.

If now, 40 years after the Venice Charter was written, such criticisms are hardly heard any longer, this may have to do with the fact that this paper, by now translated into many languages and known and appreciated world-wide, is considered a historic document, which must not be corrected in any way. Thanks to its broad definition of the term "monument" the Charter can easily be integrated into the cosmos of international theory and practice of conservation/preservation although nowadays definitions of cultural heritage go far beyond the ideas of 40 years ago (see p. 8). Furthermore, aims and possibilities combined with catch-

words such as "repair", "rehabilitation", "reconstruction" and "reversibility" open up new perspectives for the safeguarding of monuments and sites as well as new fields of duties for the preservation of monument categories on which the Venice Charter commented only cursorily or not at all.

In accordance with the "cultural diversity and heritage diversity", explicitly emphasized in the Nara Document, regional principles on protection and conservation are also very welcome, one example being the Burra Charter of 1979 (The Australia ICOMOS Charter for Places of Cultural Significance), already revised several times (see pp. 62-69). It seems that for world-wide efforts to preserve monuments and sites "in the full richness of their authenticity", as it says in the Venice Charter (cf. p. 7), a pluralistic approach taking regional traditions of preservation into consideration has under these circumstances become a matter of course. Considering the omnipresent threats to our cultural heritage, in all necessary struggle for the right solution in every individual case there should not be any "dogmatic wars" about principles. Instead it is important to save what can be saved within the range of our possibilities. Of course, the preconditions vary a lot and depend on the existing - or non-existing - monument protection laws and on an effective management as well as on the commitment of all parties concerned and on the quality of the conservation professionals.

Within the framework of a necessarily pluralistic approach to conservation the Venice Charter, the foundation document of ICOMOS (see p. 7), will also in the future remain one of the most relevant papers on the theory and practice of our work. But exactly because of that we must not ignore that from today's point of view the Venice Charter as a historic document depends on a certain period: Up to a certain degree the Venice Charter bears testimony of its time and therefore not only requires supplements to special points – supplements which in many areas have already been made -, but also needs interpretation from time to time. The history of its origin leads back to the First International Congress of Architects and Specialists of Historic Buildings in Paris 1957 and to the result of a meeting of conservationists of historic buildings, organized by the International Museum Office at the Athens conference, the Athens Charter, already mentioned several times (cf. pp. 8, 9, 10, 15, 19). In a way some of the thoughts found in the Venice Charter were developed parallel to the reflections formulated in the 1920s and 1930s by the Modern Movement, for instance the famous Athens Charter of 1933 by CIAM (= Congrès Internationaux d'Architecture Moderne, founded in 1928). With considerable contributions from Le Corbusier CIAM at that time laid down the rules of modern urban planning.

Also in the case of the Venice Charter theory and practice of conservation, as they have developed since the 19th century, must be seen in **close correlation to the respective "modern" architecture**. Conservation practice of the 19th century, in Europe a "child of Romanticism", born against the background of a first brutal wave of destruction during the French Revolution and the Secularization, must be seen in its fluid transition between "restoration" and "new creation", drawing from the freely available arsenal of historic styles in close connection with the architecture of Historicism. Thus in the 19th century, despite warning voices from such men as John Ruskin and William Morris, the preservation architects who prevailed were those

who backed completely a fiction of "original" form and design which negated later alterations in accordance with the ideas of "stylistic purity" and "unity of style". They sacrificed to this fiction not only all traces of age but also the historic layers that had evolved over centuries, quite in keeping with Viollet-le-Duc's famous definition of restoration: Restaurer un édifice, ce n'est pas l'entretenir, le réparer ou le refaire, c'est le rétablir dans un état complet qui peut n'avoir jamais existé à un moment donné" (To restore a building is not to preserve it, to repair or rebuild it, it is to reinstate it in a condition of completeness that could never have existed at any given time). In its strict rejection of this "restoration" practice of the 19th century the "classic" conservation practice of the 20th century, developed at the turn of the century, concentrated exclusively on the mere conservation of monuments of artistic and historic value. At the same time the Modern Movement jettisoned all "historic ballast", thus declaring the new form, "purified" of even the simplest ornament, an expression of the respective new function ("form follows function") in contrast to the conserved old form as "document of history". Under these circumstances "pure" architecture and "pure" conservation can actually only exist as contrasts, if only for reasons of "honesty" and "material justice" - catchwords from the Modern Movement, which occasionally are even used today as arguments in conservation practice, although they are hardly suitable for the handling of historic architecture.

Against this background typical attitudes of the time when the Venice Charter was written are noticeable in some of its articles, reflecting a period that was not only highly critical of the questionable restoration practice of Historicism but also of its architecture in general. Even the conservation authorities either purified many of these architectural witnesses or had them demolished altogether – buildings which in the meantime would have achieved monument status themselves. In the sense of the famous slogan "conserve, do not restore" by Georg Dehio, who was one of the founders of "classic" monument conservation around 1900, we can understand the Venice Charter's cautiousness about "restorations", which should only be the exception (article 9, see p. 9), and its negation of the question of "renovation" by leaving it out completely as well as its rather "prudish" attitude towards replacements (article 12) or, what is more, reconstructions (article 15). On this account from a modernistic point of view it was seducing to manipulate certain articles of the Venice Charter in accordance with one's own architectural doctrines, for instance article 15 as alleged prohibition of any kind of reconstruction (see p. 19), or article 5 as an alleged command to use and find a function for every monument (see p. 8), even if this new function is paid for with considerable loss.

In so far we must consider the **Venice Charter as a historic document** in correspondence with the "classic" monument conservation evolved around the turn of the century in Europe in opposition to the restoration practice of Historicism. And of course a certain correlation to the Modern Movement is noticeable, which by the 1960s had developed into the "International Style" and overcome all political borders and social systems. Therefore, the thought suggests itself that the crisis of modern architecture in the 1970s, marked by the appearance of so-called Post-modernism, must also have had an impact on the practice of dealing with historic architecture. The various trends in the architecture of the last decades have indeed opened up new per-

spectives, including the possibility of reacting to a historic surrounding in a differentiated way, not simply by contrast of form and material, but occasionally by even using historic architecture as a source of inspiration. In this context new opportunities for the preservation of historic architecture have also developed. The intercourse with historic architecture is even understood as a kind of "school for building" in the sense of repair and sustainability – chances which conservationists acting world-wide must use in a pluralistic approach, adapted from case to case to the various categories of monuments and sites and also taking regional traditions into account.

Within such a pluralistic approach all monument values need to be taken into consideration, in the way they were already defined 100 years ago by the still useful system of commemorative and present-day values in Alois Riegl's Modern Cult of Monuments (1903), going far beyond the question of material/immaterial or tangible/intangible values. While the Venice Charter at the time when it was written could hardly free itself from a slightly one-sided cult of historic substance – i.e. the emphasis on the role of the authentic material, which to a certain extent is of course indispensable -, the Nara Document (cf. p. 118) described the authentic values, including the authentic spirit of monuments and sites, in a much more differentiated way than in the current debate on the rather simple distinction between tangible and intangible values. Concerning this authentic spirit one could recall the remarks on works of art by Walter Benjamin, who speaks of a spiritual message that is also expressed in every monument's and every site's own "trace" and its "aura". Trace is understood here as the meaning of the history of the building, which is expressed by traces of age, the "scars of time". Aura refers not only to the aura of the famous original but also to the aura of the modest historic monument, an aura that is present "in situ", even when the monument is no longer existing or is hardly comprehensible as "historic fabric". So the true and authentic spirit of monuments and sites normally only finds expression in combination with a particular place, a space encompassing a certain environment or what we may have defined as a cultural landscape or cultural route. In conjunction with such a space time as a historical dimension becomes comprehensible: time that has passed at this place, a process that has left many traces since the creation of an object, which has perhaps become a monument, an object of remembrance, only in the course of centuries, a monument in the sense of the Roman definition quoted above (see p. 8); time that is also present in the form of the "Zeitgeist" that the monument embodies, a hard-to-translate German word suggesting the spirit of the times in which the way of life and the "style" of a particular period or epoch are reflected. Space and time can even become one in the spiritual message of a monument, - the apparently paradoxical but quite tangible presence of the past.

In the future the close cooperation in protection and preservation of our natural and cultural heritage as demanded by the World Heritage Convention (1972) will surely influence the further development of conservation principles, thus going far beyond the Venice Charter which aimed exclusively at our cultural heritage in the form of monuments and sites. The fact that environmental protection and monument protection belong together, that today's preservation practice rests on the foundations of a general environmental movement is an aspect that is not to be overlooked, although so far the consequences of this connection are to some extent only reluctantly acknowledged by preservationists themselves. But against the background of worldwide progressive environmental destruction on a gigantic scale, monument protection and management also take on a true moral dimension which has hardly been discussed in connection with the Venice Charter. The moral question directed to the preservationist himself is very tightly linked with the issue of conserving, of preservation as the supreme principle. However, within the framework of today's "monument cult" the attempt to establish general moral tenets for handling the historic heritage could avail itself less of the key term authenticity and more of the key term continuity. The concept of historic continuity continuity which should be upheld and which of course is not only embodied in our monuments – can also be called upon as a moral justification for monument protection: the remembrance of history, also necessary in the future for man as a historical creature, must not be broken off. Therefore monuments and sites are to be preserved; to surrender them to destruction is not a question of weighing interests but rather a question of morals. In a figurative sense this is true not only for cultural landscapes shaped by monuments, but also for our natural environment, in which the continuity of a natural history that encompasses millions of years (also embodied by "monuments of nature") appears today to be in question.

The now 40 year-old Venice Charter and all the other ICO-MOS charters and principles will hopefully accrue the moral strength that will help us in the future in the daily struggle against the all-present powers of destruction.