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Reversibility – Preservation's Fig Leaf?

Dedicated to Prof. Dr. Paul Bernett

Even though an unavoidable – but hopefully to a certain extent also reversible – surgical operation on the meniscus of my right knee unfortunately keeps me from participating in the Karlsruhe conference on reversibility, I would like to try to introduce the theme.

Reversibility – preservations's fig leaf? In any case, the first fig leaves shortly before the Expulsion from Paradise must have been absolutely reversible, whereas those on representations of Adam and Eve (for instance on the portal of the main parish church of Coburg) would only be removable with considerable loss. Indeed, even the fig leaves that were belatedly added, especially during the second half of the 19th century, to works of classical antiquity in many art collections entailed certain interventions in or even mutilations of historic fabric.

Not only in museums but also in preservation practice enough fig leaves will be and were on hand for possible stripping away by an enlightened public. Think of the restoration of a monument, „due" once again, as pretext for measures that are completely unnecessary and that damage the historic fabric; think of the allegedly indispensable use of every monument („use fetishism") as justification for unnecessary destruction. Indeed, imagine preservation in its entirety as a single huge fig leaf: a stage set, sustained by tough protection measures, that deludes society with the familiar image of a historically developed environment, a stage set behind which the breathtaking „progress" of the 20th century, aimed at the destruction of our entire environment, takes place with the absolute irreversibility inherent in all historical processes. The „Fall" responsible for this fig leaf – which considering the wealth of monuments in our world is still very large – could then be interpreted very generally as the loss of a comparatively naive handling of „history" thanks to the realization that all peoples and regions have at all times contributed to the common „historic heritage" (evoked by so many international resolutions), hence also as a form of art historiography developed in the course of the 19th century. If we join to this preservation as a doctrine, developed parallel to art history, of the necessary protection of the evidence of certain historical processes – of the „historic fabric" – we gradually approach the alleged „substance fetishism" of preservation today, as it is also expressed in preservation practice in the demand, by now rather frequently heard, for more „reversibility".

Among the fathers of modern preservation, the great theoreticians of the turn of the century, Riegl, Dehio, Dvořák and others, there was no talk or only indirect mention of „reversibility". Only in the last decades does this word, which without doubt defines an essential principle of modern preservation, appear frequently in connection with restoration issues. It is not mentioned even once in the famous Charter of Venice from 1964, which is still the most important international paper on principles of preservation. Thus it appears that the Karlsruhe conference on reversibility, jointly organized by ICOMOS and SFB 315, indeed takes up this phenomenon for the first time with a seriousness that is not even to be covered up by the fig leaf. Our great opportunity is precisely the fact that not only preservation and museum professionals, conservators and restorers are participating here but also those natural scientists with whom modern preservation no longer wants to do without.

The Concept of Reversibility

In an effort to establish at least lexical proof of the use of the word „Reversibilität" in German, we are referred almost exclusively to a natural scientific context, in contrast to the somewhat broader use of the word in French (réversibilité), Italian (reversibilità) and English (reversibility). „Reversibilität" means able to turn back, therefore „reversible processes can be undone in every detail"[1]. Nothing is to be found, however, concerning the use of the word which has in the meantime become common in preservation, and which I would like to define here for the present as the option in preservation work of being able to reestablish the previous condition without limitations.

The overall problematic concerning the relationship reversibility/irreversibility is probably best defined in

the relevant article in the European „Enzyklopädie zu Philosophie und Wissenschaft", published in 1990: „Reversibility exists if processes can also proceed in time in reverse sequence. If that is not the case, then it is a matter of irreversibility. Many of the processes considered reversible are, strictly speaking, merely processes that are with reasonable accuracy roughly reversible. In philosophic generalization of practical experiences from all relevant spheres of life and of the history or mankind it is often established that reversibility is the exception which requires explanation in an objective reality that is essentially characterized by irreversibility: because irreversibility is an essential character of all evolutionary processes, the acknowledgement of the universality of the principle of evolution is simultaneously acknowledgement of the general irreversibility of the objective happening. In contrast to such philosophical interpretations of the dominance of irreversibility, in physics irreversibility long played a subordinate role. Because the laws of motion of mechanics, quantum mechanics and electrodynamics are invariantly against time reversal, within physics irreversibility was seen either as a result of reversiblity that followed under very specific conditions or even was declared mere illusion seen against a background of universally valid reversibility..."[2].

Since the beginning of this century the principles of natural science, built on the deterministic and reversible laws of nature, have changed fundamentally. According to more recent knowledge, many „fundamental processes which are shaped by nature" in macrophysical and microphysical fields do indeed involve irreversible processes, leading to a „new notion of matter": „It is no longer passive, as in a mechanical world view, but is is equipped with spontaneous activity. This change is so basic that we really believe that we can speak of a new dialogue of man with nature."[3] But let us forget for the moment the anyway rather impenetrable seeming (at least for the average preservationists) world of modern sciences and betake ourselves into the morass of practical preservation, which tries to rescue what historic fabric there still is to be saved.

Irreversible Historic Processes

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" which receives the highest priority in Riegl's „Preservation Cult" is also the result of more or less irreversible aging processes. It can hardly be a question of keeping these „natural" aging processes (catchword „patina") reversible, of rejuvenizing the monument, of returning it to that „original splendor" that is so fondly cited at dedications; rather it is only a question of arresting more or less „unnatural" decay (think of 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. „Reversiblity" 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 the irretrievable loss of the monument as a historic document.

Reversibility Option

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 – that often overlooked but so essential field of „servicing" – 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 „repair-ability"). In this sense the replacement of stones by the cathedral stonemason workshops, seen as „continuous repair", 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.

Finally, a further reference to possible reversibility options in „rehabilitations" and „modernizations" of monuments: naturally here too the more modest, perhaps repeatable solution, reduced to the necessary – for instance the replacement building in the gap in a row of buildings in the repair of a historic quarter – is more likely to be relatively reversible than the large project which irrevocably breaks up the historic urban structure and takes over multiple land parcels. From a preservation viewpoint, „reversible" solutions are also naturally to be

given preference in modernization work of all kinds in older buildings: for instance an electric installation placed on top of plaster which can be renewed or removed without damage to the historic fabric.

Relatively Reversible Safety Technology

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, 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 craftsmanlike 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" (a term that is especially familiar to natural scientists). In the case of a compatible (that is, adapted in its nature to the original material) „non-damaging" substitute material that serves to stabilize and supplement when used in conservation or restoration 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 worm-infested wooden sculpture, etc. – the materials that are more or less 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 be easily removed. Just as we already spoke about reversibility in the sense of „ability to be repaired again", here we are concerned with the option of being able to conserve or restore again with as little damage as possible.[6]

„De-restoration"

It is no coincidence that the „reversibility debate" now being carried on in many fields of preservation 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". Such an attempt can indeed prove itself a tragic mistake; think of Leonardo's Last Supper, which threatens in part to disintegrate into nothingness with the continuation of the most recent restoration, which has already caused irreversible conditions. In comparison the fate of the Barberini Faun in the Glyptothek in Munich is different: he long ago lost the fig leaf applied (luckily reversibly) in the 17th century, but at any time he could be given once again the baroque additions that have been stored in the depot since the last „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 work – work which should at the 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 – unfortunately not infrequently involving „clearing-up" 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 a renewed renovation (the ability to be renovated again).

Total Reversibility?

The broad spectrum of „reversible" measures in various branches of preservation practice will surely be discussed using many examples going beyond my introductory observations. Perhaps we should agree upon a certain limitation on the use of the by now popular ‚magic word' reversibility. 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, quite in mind of the encyclopedia excerpt cited previously, according to which even „many of the processes which are considered reversible are strictly speaking merely processes that are with reasonable accuracy roughly reversible". A very helpful aim for preservation practice seems to me 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.

Work that is to a certain degree reversible is always temporarily applied: retouching work that could be removed during the next restoration (but hopefully not before 100 years), additions to or auxiliary walls in a building that in case of a future change in use could be taken down again. In each case to a certain extent the „previous condition" before the last measures would be reestablished. In this sense the reversibility option can correct some all-too-perfect or simply „excessive" preservation plans which arouse the suspicion that the preservationists, in league with the participating restorers, engineers and scientists, want to set a permanent monument to themselves. In contrast to technocrats, for whom any means is justified for achieving a certain aim, the preservationist obsessed with „reversibility" at least demonstrates a healthy mistrust of his own actions – no wonder given experiences with mostly irreversible results of preservation as practiced by our predecessors.

Unavoidable Irreversibility

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; this, too, is an important prerequisite for the option already mentioned often, of the „ability to restore again". In contrast, in certain archaeological investigations (for instance a surface excavation) the findings in their entirety (with the exception of „exhibits" that land in a museum) are often lost perforce. Comprehensive documentation takes place of the historic fabric on the historic location, whereby the excavation process at least remains understandable through publications –„reversibility" on paper.

Reversibility – Preservation's Fig Leaf?

In memory of the „aura" and „traces" (German: „Spur") of a work of art as described by Walter Benjamin,[7] may I still perhaps draw attention to the possibilities of immediate „monument experience", however clouded for some preservationists by many years of professional practice: traces (naturally with preservationist as the „securer of the evidence") in the sense of a history of the genesis and influence of a monument which grows stronger with increasing knowledge; aura perhaps also present at the location of the monument even if the monument itself is no longer or barely conceivable as „historic fabric"; aura also in the differing form that the matter has taken on over the course of time. Added to this is the „breath of history" and the feeling of the past that according to Riegl is conveyed by the „age value" — that feeling in the face of a monument, as a quite serious Viennese colleague tried to define it at a recent conference of conservators in Salzburg. How sterile in contrast the usual understanding of the monument seems, revolving as it does around the description, measurement, analysis and –naturally reversible – repair and restoration of historic fabric (taboo fabric, as it were, the preservation of which does not require any further explanations). (For its part, the substance fetishism, with its orientation toward pure matter, can be traced back to the cult of relics). According to this understanding of a monument, preservation as „art" actually cannot exist („creative preservation" is, with good reason, anyway disapproved of). But nonetheless it appears to me that also in the closing years of the 20th century strong creative forces are still effective in

preservation, even in our so heavenly emphasized preservation-as-science. And moreover, preservation of course has more to do with art and architecture of our time than is commonly supposed.

Quite a different theme ? I think not, because with this background one could somewhat more critically „scrutinize" the welcome reversibility option. For example, reversibility as the comfortable way out? There is no need for new ideas since the work is anyway only planned as „temporary", until we can return again to the „intact world" of the previous condition. Still worse: reversibility as the excuse for the downright disfiguring handling of a monument ? Reversibility as a kind of „evasive manœuvre" in the face of history, because one could, possibly after many generations of „reversible" measures, return again to the starting point (in the background there is always the tendency which we know is dangerous to recreate an imaginary „original condition"). Finally reversibility as a typical sign of the supposed artistic impotency of our time ?

Let us stay instead with our – comparatively harmless – fig leaf (with a question mark), remaining conscious that the reversibility option in a great number of cases can in fact be very useful and helpful, indeed that it represents a principle worth heeding, even if this principle does not always prevail. And finally in case preservation, as previously suggested, should as a whole have functions of a „fig leaf", we want to console ourselves that precisely our society, the „naked society" as David Riesman has described it, needs this fig leaf more urgently than ever.

Notes

1 Wörterbuch der deutschen Gegenwartssprache, vol. 4, Berlin 1985, p. 3034.

2 Ulrich Röseberg: „Reversibilität/Irreversibilität", in: Europäische Enzyklopädie zu Philosophie und Wissenschaft, vol. 4, edited by H.J. Sandkühler, Hamburg 1990, p. 126 f.

3 Grégoire Nicolis/Ilya Prigogine: Die Erforschung des Komplexen: auf dem Weg zu einem neuen Verständnis der Naturwissenschaften, Munich 1987, p. 11.

4 Alois Riegl: Der moderne Denkmalskultus. Sein Wesen und seine Entstehung (Einleitung zum Denkmalschutzgesetz), Vienna 1903 (reprinted in: Riegls Gesammelte Aufsätze, Augsburg/Vienna 1929, p. 150).

5 Compare Michael Petzet: Grundsätze der Denkmalpflege, in: Jahrbuch der Bayerischen Denkmalpflege, vol. 41 (1987), Munich 1991, pp. 227-239.

6 Compare Alfred Wyss: Zur Erhaltung von Kulturgütern in der Schweiz, in: Zeitschrift für schweizerische Archäologie und Kunstgeschichte, 42, 1985, pp. 7-12, here p. 8.

7 Walter Benjamin: Das Kunstwerk im Zeitalter seiner technischen Reproduzierbarkeit, in : Zeitschrift für Sozialforschung, 1, 1936 (Reprint Frankfurt a. M. 1963, here pp. 14 and 16).

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