CONSERVATION ETHICS TODAY

ARE OUR CONSERVATION-RESTORATION THEORIES AND PRACTICE READY FOR THE 21ST CENTURY?

International Scientific Committee for Theory and Philosophy of Conservation and Restoration ICOMOS

Lublin University of Technology

Florence - Lublin 2019
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The future of restoration? Some fancy thought
Wilfried Lipp
The present publication in the proceeding series “Heritage for Future” of ICOMOS Poland and the Technical University of Lublin is the result of an interdisciplinary exchange and cooperation between three international and national scientific committees of ICOMOS (the ISC Theory and Philosophy of Conservation-Restoration, the ISC Stone, and the German NSC Conservation-Restoration of Wall Paintings and Architectural Surfaces), renowned institutions of conservation-restoration and history of art, as well as institutions of education and professional representation in this field (the National Italian Conservation Institute Opificio delle Pietre Dure OPD in Florence, the Kunsthistorisches Institut, Max-Planck-Institut in Florence, the European Confederation of Conservator-Restorers’ Organisation E.C.C.O., the European Network of Conservation-Restoration Education ENCoRE, the Italian and German Professional Associations of Conservator-Restorers (A.R.I. Associazione Restauratori d’Italia and VDR Verband der Restauratoren). It is based on an international ICOMOS conference held in Florence in March 2018, supported by the Fondazione Romualdo Del Bianco and its international institute Life Beyond Tourism.

The topics of the publication are focussed on the relationships between theory and practice of conservation-restoration in the field of heritage preservation, considering the positions and developments of the twentieth century for the challenges of the twenty-first century. Particular attention is directed to architectural heritage, its surroundings and its fittings, such as architectural surfaces and wall paintings, stuccos, decorative elements in stone, majolica, ceramic, etc. Due to the involvement of the initiative in the European Year of Cultural Heritage (EYCH) 2018, the contributions in this publication deal with experiences and perspectives of conservation-restoration especially in European heritage preservation—including a critical look from outside Europe—to provide important input and fresh perspectives. Students and young professionals active in the field of heritage preservation are represented by short contributions in the appendix of this publication.

The ethics of conservation concern issues of the relationship between objects and actors, i.e. between our heritage and the professionals dealing with heritage preservation. Ethical principles as a basis for developing appropriate methods and techniques of conservation-
restoration are required. These applied ethics are closely connected with the professional ethics of conservator-restorers and of all other specialists involved in the preservation of architectural heritage. One of the aims of this publication, with contributions from different points of view and different professional experiences, is to improve interdisciplinary understanding and cooperation between conservator-restorers, architects, craftsmen, art historians, building archaeologists, conservation scientists, and all others active in this field. With reference to everyday practice, the contributions deal with the specific professional profiles and tasks of all these specialists and try to increase the quality of communication and co-operation, with a close contact between theoretical positions and their significance for the practice of conservation-restoration.

A few notes can introduce the central topics of this publication:

Re-thinking conservation-restoration theories of the twentieth century in the early twenty-first century

The European tradition of heritage preservation, use and presentation is based on well-established theories of the twentieth century. The most famous and often quoted—maybe also sometimes misunderstood—theories are those of Alois Riegl, *The Modern Cult of Monuments: Its Essence and Its Development*, published in 1903 (Riegl, 1903), and of Cesare Brandi, *Theory of Restoration*, published in 1963 (Brandi, 1963; 1977), but written in the mid-twentieth century. For us, these theories are essential historical sources, the first one having been conceived as a commentary on a new Austrian law on the preservation of cultural heritage, the second one explicitly dedicated to the conservation-restoration of works of art, at that time mostly neglected in theoretical statements and traditionally handled with methods and techniques of craftsmanship and artistic re-interpretation. Both theories are philosophically founded, with precise definitions of complex terms and concepts, but also tied to the social context of their own time. Without any doubt, Riegl’s broad and manifold definition of a cultural monument with its *commemorative values* and its *present-day values* is the most modern definition of the twentieth century, because it can embrace all material and immaterial expressions of human creativity and of human activities in general. For this reason, today Riegl’s definition is even meaningful for specific conservation challenges unknown at that time, e. g. the conservation of modern and contemporary art in our day. But Brandi’s theory, especially written for works of art, can also be successfully applied today, e. g. in the preservation of built heritage. Both theories to this day offer extremely useful dialectic instruments for the development and evaluation of appropriate concepts for the conservation, mediation and use of cultural heritage. In Riegl’s theory, it is the assessment

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1 Brandi’s Theory is based on his articles on the theory of restoration published from the late 1940s to the 1950s in the Bollettino dell’ Istituto Centrale per il Restauro in Rome. These articles were published as a book for the first time in 1963; a first reprint with the Italian *Carta del restauro* in the appendix followed in 1977. The English translation of Brandi’s theory of restoration was published in 2005, see: Brandi, 2005; the German commented translation (the only commented one in the series of translations promoted by Giuseppe Basile) was published in 2006, see: Brandi 2006.
between the commemorative values (age value, historical value, deliberate commemorative value) and the present-day values (use value, artistic value with the sub-categories newness value and relative artistic value) – and for today’s demands of heritage preservation we can add without any problem some new values, e.g. current social values in the mediation and management of cultural heritage. In Brandi’s theory, it is the stress between two antipodes, the historical instance on the one hand and the aesthetical instance on the other, and the challenge to keep them in an appropriate balance. This balance can bridge the gap between two apparently irreconcilable positions, i.e. between the mere conservation of the handed-down conditions and the aesthetic demands of a work of art, in its own time as well as at present. These aesthetic demands today can perhaps also be defined as requests of an appropriate presentation of cultural heritage from the point of view of the involved communities and stakeholders.

Dealing with Riegl’s *Modern Cult of Monuments*, we must consider also the writings of another great figure in the field of heritage preservation at that time, Georg Dehio, and his debate with Riegl on theoretical positions and their practical influence on conservation-restoration. Dehio emphasized the monument as a historical document, with its handed-down materiality bearing witness not only to the original, but also to aging phenomena and human interventions collected in the course of time. In his pamphlet advocating for the preservation of Heidelberg Castle as a ruin, he recognized the historical and emotional values of such venerable archaeological evidence closely connected to its material substrate (Dehio, 1901). Based on this concept, he formulated his famous motto that the task of professionals and technicians active in this field is “to conserve, not to restore” (Dehio, 1905, p. 142).

It’s interesting to note that another prominent figure for the study and preservation of built heritage, Camillo Boito, in the late nineteenth century formulated this axiom in the cultural context of Northern Italy: “conservare non restaurare” (Boito, 1893). For Central Europe, this was a revolutionary concept against all trends of de-restoration and re-restoration so well established in the nineteenth century, and it’s current until today, against the widespread tendencies to spruce up monuments in “new splendour”, with painful losses to historical authenticity.

In 1978, Brandi’s *Theory of Restoration* was readopted by Umberto Baldini with his *Theory of Restoration and Methodological Unity* (Baldini, 1978). Baldini did not enhance Brandi’s sophisticated philosophical argumentation, but his great merit was a forceful development of re-integration methods and presentation concepts in the context of a convincing methodological system. He was able to implement such a system in close cooperation with the conservators of the Fortezza da Basso in Florence. With empathy for the aesthetic demands of fragmentary cultural heritage in general, Baldini did not restrict his thoughts to paintings and sculptures, but he also included their historical format and framework as well as their integration in an architectural context. Furthermore, he incorporated in his considerations the so-called minor objects of arts and crafts. This broader definition of

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2 After the publication of 1978, a second volume with the same title followed in 1981; see: Baldini 1981.
cultural heritage evolving from traditional perceptions of history of art, was an achievement of interdisciplinary cooperation, in the spirit of the European Year of Cultural Heritage 1975. Baldini’s *Methodological Unity* is not frozen in time but developed further with a continuous critical evaluation of his re-integration methods in today’s practice of conservation-restoration, with great results especially in Tuscany.³

Summing up, the classical conservation-restoration theories of the twentieth century have to this day preserved their currency in many concepts and criteria, and all in all they present a remarkable development potential. Core principles of today, such as interdisciplinary investigation and documentation, continuous maintenance and care, and preventive conservation, have their seeds in theory and methodology developed in the course of the twentieth century, sometimes even before. But what has changed in the last decades, what are the new theoretical challenges of the twenty-first century not considered by the theories of the last century? Step by step, we have abandoned the typical Eurocentric position in the perception and preservation of cultural heritage in favour of a broader view of diverse meanings and traditions of conservation-restoration in other parts of the world – with benefit also for the development of European theories and practice. Furthermore, today we recognize the necessity of a democratic participation in decision-making processes concerning concepts of conservation-restoration and their practical realisation, involving the communities historically and emotionally connected with their cultural heritage as well as the various stakeholders and users. In this way, the long-time exclusive debate between experts in the field of heritage preservation is becoming more and more open minded. Experts’ knowledge still remains the fundament of sustainable decisions in conservation-restoration, but it must be explained to other groups of people with clear statements. Many important questions, e.g. the ethically and aesthetically appropriate presentation and mediation of cultural heritage, require respectful dialogue with all involved persons, as the basis for mutual decisions supported by experts and non-experts. In the last decades, various statements on theory and practice of conservation-restoration have emphasised the importance of inter- and transdisciplinary cooperation as the best practice for democratic decision-making processes in heritage preservation. As a representative example one could mention Salvador Muñoz Viñaz’ *Contemporary Theory of Conservation* published in 2005, with a comprehensive analysis of current challenges in conservation-restoration situated in a broader ethical and social context (Muñoz Viñaz, 2005).

**Meaning and practical relevance of international Charters, Principles and Documents**

Charters, Principles and Documents on heritage preservation enunciated and published by ICOMOS since the Venice Charter adopted in 1964 (*The Venice Charter, 1964*) have had an outstanding importance for the theory and practice of conservation-restoration to

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³ These results are essentially due to the experts of the OPD Opificio delle Pietre Dure e laboratori di restauro della Fortezza da Basso in Florence, and their theoretical research closely connected with a continuous implementation in exemplary conservation-restoration projects.
this day. After more than 50 years, the *Venice Charter* is now a historical document, from some points of view typical for the European needs of heritage preservation in the situation of rebuilding after World War II. But first, the *Venice Charter* is the foundation document of ICOMOS and the great prototype of all following ICOMOS Charters, with a strong ethical impact, thanks to its very clear structure and its accurate and short formulations, comparable with the wording of a law. For this reason, the definition of the term “restoration” in the *Venice Charter* is the most quoted definition of this term to this day⁴ (The Venice Charter, 1964, p. 48). This *International Charter for the Conservation and Restoration of Monuments and Sites* was mostly formed by architects, art historians and archaeologists active in the field of heritage preservation, but soon the charter was also appreciated by conservators active in other fields, e. g. in museums or libraries, and became the first doctrinal text for students starting their studies in conservation-restoration. How can we explain this extraordinary career of the *Venice Charter*? It is the concision and clarity of its definitions and statements – for many professionals and for young people they are better understandable and more useful in every day discussions than tricky theories. This can also explain the great social relevance of the *Venice Charter*, from the very first to this day. Even though the charter has no legal foundation, its moral commitment is recognized all over the world, with a remarkable influence on national legislation for the protection of monuments and sites.

In contrast to the *Venice Charter*, the Italian national charter on conservation-restoration, *Carta del restauro*, first edited in 1932 with reference to the *Athens Charter* of 1931, and revised several times, most recently in 1972 with reference to Cesare Brandi’s *Teoria del restauro*, was drafted with the intent of legal validity, but unfortunately was never adopted by the responsible ministry of education (Brandi, 1977, pp.131-154). The *Carta del restauro* of 1972 circulated only in-house in the departments responsible for the preservation of monuments and sites and works of art. Its limited success was also caused by the very extensive appendix with partially time-bound methodical and technical recommendations on conservation-restoration. Thus, one can learn from this experience that charters must avoid too intricate formulations, because most people will not read them; furthermore, long-time accepted principles must avoid detailed instructions, because they rapidly become obsolete.

Returning to the international charters, documents and principles adopted by ICOMOS, one can remark that these mostly short doctrinal texts, compared to complex theoretical treatises, can respond adeptly to new demands of understanding, preservation, conservation-restoration and use of cultural heritage. In this way, many issues not given or not deepened enough at the time of the *Venice Charter* were presented in later documents dedicated to specific subjects, as an integration or updating of this charter.

As an example, one can quote the ICOMOS *Principles for the Preservation and Conservation-

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⁴ Note: in the Venice Charter, the terms conservation and restoration have the classical meaning in use until today e. g. in the Italian and German terminology. Restoration follows conservation, as a critical act of interpretation, with regard to the historical instance and the aesthetical instance and with the commitment to hand down a work of art to future generations. See: Brandi, 1963, quoted from: Brandi, 1977, chapter 1, p. 6.
Restoration of Wall Paintings adopted in 2003 (ICOMOS Principles for the Preservation..., 2003). In the spirit of the Venice Charter, these principles emphasize issues such as the necessity to preserve wall paintings in situ, as an integral part of the building or structure, with an appropriate site management, including preventive conservation and careful planning of access and use. Without going into technical details, the principles deal with core questions in the conservation-restoration of wall paintings, giving a guideline for owners, users and all experts involved. Thanks to the authority of ICOMOS, in difficult situations such a document can strengthen the position of conservators and boost scientific investigation and sustainable preservation.

By respecting and enhancing the Venice Charter, ICOMOS Charters and Documents were able to move away from Eurocentric positions, enriching classical principles with the introduction of new cultural, social and ethical concepts. Thus, the Burra Charter: the Australia ICOMOS Charter for Places of Cultural Significance, adopted for the first time in 1979 (The Burra Charter, 1979-2013), extends the term “historic site” to places of cultural significance. These places reflect the diversity of communities, including sites with natural and cultural features, with aesthetic, historic, scientific, social as well as spiritual values. In a more and more globalized world, the Nara Document on Authenticity adopted in 1994 (The Nara Document, 1994) emphasizes the diversity of cultures and heritage as an irreplaceable source of spiritual and intellectual richness and demands an appropriate assessment of the values and authenticity of cultural properties within the cultural context to which they belong. To this day, this is a revolutionary farewell from normative ethics and standardized proceedings in the evaluation and preservation of cultural heritage all over the world. The respect of the specific social and spiritual values which connect a community to its cultural heritage, also implies recognising traditional methods of conservation, repair, maintenance and maybe renovation as part of these values. Traditional methods could contribute to the authenticity of cultural heritage, even though sometimes they may contradict well-established international principles and methods of conservation-restoration. Authenticity, this core term of modern conservation ethics, is not carved in stone but needs case-specific definitions, evaluating the tangible and intangible values of cultural heritage within specific cultural contexts, in an interdisciplinary and intercultural dialogue.

Thanks to these and other doctrinal texts, international attention since the 1990s has been thoroughly dedicated to long-neglected intangible values, with a concept of cultural heritage becoming more and more immaterial. This change of perspectives has also enriched the classical European discussion on the values of a monument, recognising that tangible and intangible values in most cases are the two sides of a single coin, closely connected together, and demanding the commitment to respect both values. From this it follows that the material

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5 The Nara Document was drafted in Nara, Japan, in 1994, at the conference on Authenticity in Relation to the World Heritage Convention, organized by the Agency of Cultural Affairs of the Government of Japan in cooperation with UNESCO, ICCROM and ICOMOS.

6 Without deepen this concept, a reference to the UNESCO Intangible Cultural Heritage, see: https://ich.unesco.org/
conservation-restoration of the monument is not debatable but the Conditio sine qua non, i.e. the essential requirement to preserve its tangible and intangible values.

Meaning and practical relevance of ethics and ethical guidelines in the conservation-restoration of heritage today.

In everyday practice, the importance of conservation ethics is increasing. This phenomenon is closely connected to the establishment of conservation-restoration as a scientific discipline in the course of the twentieth century, with the goal to base the methods and techniques of intervention on philosophical, historical, and scientific foundations. What is the difference between ethics and theories of conservation-restoration? Are complex philosophical definitions and lines of arguments too far removed from the everyday needs of a rapidly changing society? Can applied ethics match better with the multi-layered social requirements and the operative practice of the professional world today? Indeed, since the 1990s, applied ethics and their sub-disciplines have been the most expanding area of philosophy because they can give us easily understandable answers with practical relevance to pressing social and political problems, e.g. in the field of medicine, environment and generally in scientific research.

In the young academic discipline of conservation-restoration, applied ethics and professional ethics are closely connected together, with the goal to offer well-founded, comprehensive guidance in the manifold practical challenges of conservation-restoration. In view of these challenges, in the last decades conservator-restorers have become more and more involved in the interdisciplinary definition of core terms and core principles of heritage preservation. Often-used and sometimes misinterpreted terms and concepts have achieved more clarity, and some innovative or long-repressed principles have been able to receive their warranted attention. A core term and principle of modern conservation-restoration which reflects the preventive conservation already emphasized by John Ruskin in 1849 (“Take proper care of your monuments, and you will not need to restore them”; Ruskin 1849, chap. 6, § 19) was mostly neglected in the twentieth century. A further example of a core term and principle of conservation ethics with great impact for best practice in conservation-restoration is the so-called minimum intervention, combined with continuous monitoring and interdisciplinary evaluation of the preservation conditions of cultural heritage. Such a minimum intervention respects the historical authenticity of a monument and is closely connected with the chance of repeatable treatments e.g. of cleaning and consolidation in the course of time, instead of cherishing the illusion of reversibility, with the well-known drastic consequences. The list of core terms and principles of conservation-restoration is in continuous evolution, since it requires evaluation and updates based on interdisciplinary research about fundamentals, methods and techniques. This interdisciplinary research could decisively contribute to gaining more and more knowledge and awareness in the theory and practice of conservation-restoration.

Case studies in conservation-restoration have a great practical relevance for the definition
and understanding of conservation ethics, too. With their wide variety of historical, aesthetic and ethic significance as well as their technical aspects, they are able to be a touchstone of theoretical fundaments, ethical principles and methods and techniques of conservation-restoration. What can we learn from historical case studies, how can we deal with their results today from various points of view (current state of preservation, problems of historical conservation techniques, aesthetic and social aspects, etc.), considering their historical values and their aesthetic message as well as social and scientific demands of today? Considering prominent European examples of conservation-restoration in the twentieth century, a central issue is how to deal with the fragment and the possibilities of re-integration from a historical and aesthetic point of view, including the needs of conservation. The evaluation of integration methodologies and techniques of the twentieth century may also rekindle a critical debate about virtual methods of re-integration and other perspectives offered by digital technologies.

Interdisciplinary cooperation and communication in the field of heritage preservation and management: professional ethics and tasks

The often-lamented gap between theory and practice in the twentieth century is also a result of a long-absent interdisciplinary dialogue especially between conservator-restorers on the one hand and art historians, architects and archaeologists on the other. Many case studies of conservation-restoration in the last century are evidence of the discrepancy between theoretical concepts mostly developed by art historians and architects active in the field of heritage preservation, and their implementation in practice by conservator-restorers, who often did not have an academic education but were skilled in their craft. The lack of mutual understanding probably was not even noticed by the involved persons, nor was the consequential contradiction of idea and outcome.

Considering the development of scientific conservation-restoration, the improvement of academic education for conservator-restorers, and the definition of the profession in the course of the twentieth century, and taking into account relevant contributions such as the ICOM-CC Code of Ethics (ICOM-CC Code of Ethics, 1984), the Document of Pavia (The Document of Pavia, 1997) and E.C.C.O. Professional Guidelines (E.C.C.O. Professional Guidelines 2002-2004), today we have optimum requirements to strengthen the professional position of conservator-restorers and their role in the interdisciplinary cooperation with other professionals dealing with the preservation of cultural heritage. Thus, we can accept and gradually resolve the everyday challenges, e.g.: How does cooperation run in the planning stage and on site, in theory and practice? How can we differentiate between the specific professional contributions of conservator-restorers and the activities of other professionals in the field of heritage preservation? How can we improve communication and interdisciplinary cooperation between all professionals involved? Several contributions in the present publication and the Resolution of Florence “Let’s increase Interdisciplinary Cooperation in the Preservation of Cultural Heritage!” published in the annex, can offer practical proposals and answers to these and further questions.
Let us continue in this way to increase interdisciplinary and transdisciplinary communication and cooperation, thereby enlarging our knowledge about our cultural heritage and its sustainable conservation-restoration and use!

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Bibliographic References


Wilfried Lipp is one of the great international figures in the theory and philosophy of conservation and restoration. With his unconventional and forward-looking ideas, he has, since the last decade of the twentieth century, shaken up long-established positions in the preservation of cultural heritage, without neglecting practical and social demands.

Fig. 1 Portrait Photo Wilfried Lipp (Photo Credit: denkmal-ortsbildpflege.at)
A few notes on his curriculum vitae can outline the fundament of his thoughts. After studies of architecture, art history, and ethnology, Wilfried Lipp completed his PhD in 1970 with a doctoral thesis on “Nature in the Drawings of Albrecht Altdorfer”; his doctoral advisor was Hans Sedlmayr. The State doctorate at the University of Salzburg followed in 1986, with a habilitation treatise on “Nature – History – Monument. About a Genesis of the Preservation of Monuments.”¹ The professional career of Wilfried Lipp since the very beginning has been dedicated to the preservation of cultural heritage. In 1970 he started his work in the Federal Monuments Authority of Austria, in the State Department for Upper Austria (Landeskonservatorat Oberösterreich). In 1987, he became deputy of the State Curator for Upper Austria (Landeskonservator Oberösterreich), and from 1992 he held this position up to his retirement in 2010. Since 1978, he has been a lecturer and later professor at the University of Art and Design in Linz and since 1986 in Salzburg; since 2005, he is an honorary professor at the Catholic Private University of Linz.

Wilfried Lipp’s commitment to ICOMOS and his influence on the substantial contributions of this institution is connected to important positions on the national and international level: from 2002 to 2018 he was President of ICOMOS Austria; today he is Honorary President; from 2008 to 2011, he was Vice-President of ICOMOS International, from 2008 to 2014, he was a member of the ICOMOS Executive Committee and from 2011 to March 2018, after which he did not run for re-election, he was President of the ICOMOS International Scientific Committee on the Theory and Philosophy of Conservation and Restoration. Currently, Wilfried Lipp is Honorary President of this committee, which owes many inspiring thoughts and important initiatives to him.

The complex theoretical reflections and the lengthy list of important publications by Wilfried Lipp cannot be fully appreciated in these few lines. For this reason, it is better to focus on some of his thoughts that have direct relevance for the present publication, namely on the interrelation between the theory and practice of heritage preservation, and especially on the interdisciplinary cooperation between preservationists (the felicitous German term “Denkmalpfleger” is unfortunately untranslatable) and conservator-restorers—a fulcrum for the successful transfer of theoretical principles into operative practice. Wilfried Lipp is always interested in dialogue with conservator-restorers and is an accurate, sometimes ironic observer of their work from often unusual points of view—fascinated by the chances and challenges of conservation-restoration methods and techniques, but also giving warnings about limits and risks. In this spirit, together with Andrzej Tomaszewski and Michael Falser he conceived and organised the International Conference of the ICOMOS ISC Theory and Philosophy of Conservation and Restoration in April 2008 in Vienna, taking up the issue of “Interactions between Theory and Practice. In memoriam Alois Riegl”. The proceedings of this conference are still very relevant for today’s debate (Falser, Lipp & Tomaszewski (Eds.), 2010). A quotation from the preface may illustrate this fact: “Theory and practice are often

¹ The original German title reads: „Natur – Geschichte – Denkmal. Zur Entstehung des Denkmalbewusstseins der bürgerlichen Gesellschaft“.
considered to be two different things [...] The advocates of practice reproach the exponents of theory for being too theoretical and the theorists claim that practitioners do not have an understanding that encompasses the totality of subjects". (Falser, Lipp & Tomaszewski (Eds.), 2010, p. 5) Against this traditional position, an open-minded access to theory and practice of conservation-restoration is demanded: “Thus in reality theory and practice do not exist in splendid isolation but are rather connected to each other in many ways. Theoretical views influence and change practice; innovation and technical developments feed back into theory. Furthermore, by acknowledging a multiplicity of practices, colourful variations resulting from the diversity of specific cultural traditions allow pluralistic methods to become a part of the repertoire of conservators [...] Conservation and restoration theory and practice therefore are not rigid norms but evolve with time and differ across the world [...]. Finding a balance between fundamental orientations and possible modifications is the challenge today.” (Falser, Lipp & Tomaszewski (Eds.), 2010, pp. 5-6).

For the international conference of ICOMOS Germany and the Bavarian National Museum conceived and organized by me in May 2003 in Munich, on the topic “The art of conservation-restoration. Developments and tendencies of aesthetics in conservation-restoration in Europe”, Wilfried Lipp held the introductory speech on the topic “In Restauro. Associations to a metaphor”. In this presentation, he outlined the profession of conservators and the act of conservation-restoration within a philosophical context of an all-embracing approach to a utopic vision of humankind devoted to the conservation of all being and all things of human life (Lipp, 2005, pp. 13-24). Wilfried Lipp emphasizes the positive or negative “shock” after the conclusion of a conservation-restoration intervention, when unveiling the work of art in its often dramatically changed appearance. In a broader context, this “shock” can be linked with the shock of ruination and the extremes of destruction by war and terrorism, with its perverse aesthetic components. In this way, the ruined, the torso and the fragment, the supposed or real “ugly” have revolutionised the academic concept of the so-called fine arts because they are all integrative part of our visual world. Evoking the figure of the universal conservator as preserver and protector of cosmic or governmental systems “Jupiter – Christus – Homo Conservator”, Wilfried Lipp thus outlines the grasp of conservation-restoration: “In this broad context restoration mediates between the poles of war and peace, understanding and ignorance, upgrading and downgrading, remembering and forgetting. And this means: restoration is far above the aesthetic moment a category of the dynamics of historic processes. From this point of view, it becomes clear that conservation and restoration have always belonged to political, individual and ideological programatics.” (Lipp, 2005, p. 22)²

With the era of Enlightenment and the process of secularisation, the “Homo Conservator” takes on responsibility for the protection of the endangered living environment and all material and immaterial creations of humankind, against the powerful driving forces of the “Homo Faber”, the “Homo Ludens” and the “Homo Oeconomicus”. Wilfried Lipp stresses the world of the “Homo Conservator” as an endangered one. Against the risks of incomprehension,
neglect, destruction and loss, the methods and instruments of conservation-restoration are often weak and affected by sectionalism, even though new chances for the practice of conservation-restoration can arise through the new media. With the perspective of a new era of virtual mediation, visualisation and iconological narration, it may be that professionals can more and more demand respect for the fragmentary material conditions of cultural heritage in the real world.

For Wilfried Lipp, it is essential not to forget the all-embracing vision of conservation-restoration tasks in today’s often so technically restricted definitions of the profession of conservator-restorers. As he observes, “Conservatio Hominis, Conservatio Rerum and Conservatio Naturae belong together supporting the view of ‘whole life’” (Lipp, 2005, p. 23).³

Wilfried Lipp is one of the best and most sophisticated connoisseurs of Alois Riegl’s programmatic text “The Modern Cult of Monuments: Its Essence and Its Development” (Riegl, 1903). In his great and still very relevant essay “From the Modern to the Postmodern Cult of Monuments? Issues to a Society of Repair” (Lipp, 1993), Wilfried Lipp imagines a talk show with Alois Riegl, Max Dvořák, Georg Dehio, Paul Clemen, Camillo Boito, Cesare Brandi and others sitting on a sofa, and instead of interviewing these great characters, we professionals of today are severely interrogated by them, in a dialogic paradigm change. Thus, the participants are not only concerned with the “simple-minded question” about the significance of Riegl’s and Dehio’s writings for the challenges of our present, but also with the trouble of whether today’s theory and practice of conservation-restoration are able to endure in comparison with those great thinkers (Lipp, 1993, p. 6). Maybe we could start one of our next conferences by arranging such an imaginary dialogue! Wilfried Lipp analyses Riegl’s text as an orientation guide with still unredeemed potential, with an “utopic ground” that could come up in the horizon of a postmodern understanding, preservation and mediation of monuments. In criticising the positivistic misuse of scientific conservation-restoration that may lead to a pure material preservation, Wilfried Lipp regrets the exclusion of the broad spectrum of emotional values, in the continuation of Riegl’s “Age Value”, and the consequential impossibility of a pluralistic meaningful approach to cultural heritage. For a postmodern understanding, Wilfried Lipp suggests defining Riegl’s “Age Value” also as a “Value in Process” which could place a monument with its transitory character as a companion of people’s lives, offering guidance in the present and being able to give orientation toward the horizons of the future, too. Referring to Umberto Eco’s concept of “opera aperta” conceived for works of art, Wilfried Lipp defines monuments in the era of postmodernism as “opera aperta”, too. This postmodern openness of the monument means openness for the plurality of values – the monument could become a store not only for values of aesthetics, history and memory and so on, but also perhaps for trivial every-day values or fictional values. For Wilfried Lipp, this is the fascinating but also challenging task for preservationists and for conservator-restorers: to open the monuments to the plurality of life and simultaneously to defend them against this plurality (Lipp, 1993, pp. 10-11).

³ As footnote 2.
With his narrative contribution to the present publication dedicated to “The Future of Restoration? Some Fancy Thoughts”, maybe Wilfried Lipp will be able to motivate experts and non-experts to dedicate themselves to this enjoyable and at the same time profound lecture, with fancy as well as scholarly thoughts.

**Bibliographic references**


If you speak about the future as a historian, you look first into the past consistent with the profession. That is certainly not far-fetched. The historian is – based on a well-known characteristic - a backward-looking prophet who reviews in a certain sense the futures of the past. Past defined as bygone future. Only if we know from where and how developments can come about can we make predictions. In short, the future of restoration is the result of the past of restoration.

First, some important terminological basics with very general definitions. First question, what does restoration mean? Casting a glance at this picture, one becomes aware of the development that the restoration has taken since then.
In any case, at any time, the goal was to create a state that is, so to speak, "better" than the previous one through restoration. In this sense, the history of restoration is also a history of change in the meaning of originality, authenticity and integrity.

Second question: What is a monument? Martinus Chladenius, in his general history, defines monument as any work capable of teaching the people about past things.

The far-reaching logical consequence of this is that monuments and sites are a plurivalent matter. There is basically nothing which is not worth of being remembered.

This perspective opened up a broad spectrum and is based today on the so-called extended concept of monuments, which is still valid today.
Furthermore the temporal dimension was then supplemented to the categorical extension. Ernst Bacher, the former conservator general of the Austrian Federal Monuments Office, has defined the fitting formula for this: monuments are works (of art) plus time. As we know in theory and practice, this is sometimes a difficult situation of inheritance, that gave the fragment, the torso, the puzzle and the addition a new meaning.

A new kind of aesthetics in the field of restoration was born: the simultaneity of different temporal layers.

An impressive example in Vienna illustrates this interpretation.

The fundamental recognition of the value of the temporal layers of a monument leads to the questions of content and aesthetic compatibility. The confluence of modern developments and historical structures often results in a clash of times.
4 (1)
One of the signata of our era is the aestheticization and positive connotation of real developments. The emergence of contrast is an almost commonplace example of this.

4 (2)
All in all, the phenomena mentioned above can be subsumed under the umbrella of change in the Concept of the Beautiful. An initial - also important for restoration and monument preservation - set the Querelles des Anciens et des Modernes of 1687.

4 (3)
The followers of the absolute exemplary of antiquity as the perfect ideal such as La Fontaine, Boileau, Racine and others led a scholarly discourse …
...with the representatives of modernity such as Perrault, Corneille, Pascal. The cult of genius advanced.

As can be seen in the portrait of Nicolas de Largilliere created by Charles le Brun, the references to antiquity among the modernists of this period have at most an associative character as accessories and educational material. And this means the normativity of antiquity is over.

For the development of restoration and monument preservation, the impact of Querelles in the Romantic period became crucial. Instead of antiquity, the Middle Ages now serve as a normative model, which was interpreted as indigenous antiquity.

From this significant threshold on, we distinguish six stages of evolution from Romanticism to the Present.

- mythologizing
- emotionalization
- de-emotionalization / scientification
- internationalization
- extension / democratization
- de-materialization
6 (1) The first threshold that started from Romanticism and extended throughout the entire nineteenth Century can best be grasped using the concept of mythologizing, evident in the transfiguration of the Middle Ages as the foundation of national identity formation: "The recourse to the forgotten, which at the same time has to be filled with new content, should guarantee a better future ". The Cologne Cathedral has become a symbol of this as a national monument.

6 (2) The second step around 1900 gives answers the social, political and economic changes in the development of modernity with an emotionalization in the field of monuments and sites. Pertaining to feeling and mood - paradigmatically represented in Alois Riegl's philosophy of age value – interest should be awakened based on the new reality of mass society - without any educational ballast and knowledge constraints.

6 (3) Then afterwards the pendulum swung in the other direction. Beginning with the period between the two world wars up to the 1970s, the leading idea of the rational dominates - also aesthetically. Preservation corresponds to this trend with a de-emotionalization of the discipline, material-related objectification and scientification. The findings become an anchor of monument preservation in theory and practice.
The fourth stage - internationalization - intensifies standardization strategies as well as the focus on the general and supposedly essential. The Venice Charter represents – lingering on until today - a symbol of a document referring to coexistence with and in post-war modernity.

The extension and plurality of the notion of monuments corresponds to the surges of democratization, de-hierarchization and individualization after 1968. The result is an increase in complexity that has contributed to the crisis of common sense with respect to the answer to the question "What is a monument?".

De-materialization is the meta-level of cultural heritage propagated through convention (immaterial heritage), promotion, slogan, and scientific sound. Many people would most likely agree with the trends towards a virtual and digitally-conditioned society.

The new concepts of hope are "spirit of place", "genius loci" and in general terms "the sphere of the intangible".
IV. Current focus:
1. Refinement of scientification

The current practice is essentially determined by two trends: first, a refinement of scientification in analysis and restoration methods.

2. The career of the Immaterial

Second, by the increasing importance of the immaterial and intangible.

V. What was it that we actually wanted to preserve and restore?
What are the principles for restoration today?

- The restoration must not damage the original and should accept its age-related changes.
- The restoration must comprehend the artwork holistically, which means not only treat parts.
- The restoration should respect subsequent additions as belonging to the history of the artwork.
- The restoration should not pretend to be a perfect state of preservation and be recognizable. (Ute Hack 2005)

After all these spotlights on the development of restoration and monument preservation, the question arises, "What was it that we actually wanted to protect and restore?". Ute Hack formulated four points, which summarize the concise credo compiled from the fragments of the history of discipline that I have outlined.
Looking at the future of restoration in our context, the controversial question arises as to what was lost – or what did we lose - in comparison to the present method and practice. The progressive scientification, the interpretation of the work as a document, relic and specimen has led to abstraction - in other words - to the alienation of the historical heritage, to a loss of sensory perception. It is – in a nutshell - the loss of intelligibility, readability, clarity, narrative character, coherence and wholeness.

We are indeed faced with an iconic turn and the challenge of a completely new understanding. We certainly live in times of an increasing need for commentary on historical art. What can we do about this?

To avoid any misunderstandings. There is no doubt that the indispensable basis remains the classic science-based restoration. But beyond that – if we want it or not - a digital and virtual meta-level is emerging.
The future has already begun. In general with the increase of the virtual, and we know that this - especially in terms of our core themes of authenticity, originality, and integrity - gives powerful and dangerous competition to the fake, fiction, hybridization, fuzzification, disneyfication, etc. etc.

But there are also opportunities and perspectives for new findings.

In our area especially in the visualization of construction plans showing all the stages of change.

Or in the digital reconstruction of architecture…
11 (1)
... and sculpture.

11 (2)
But that’s probably only the beginning of the process. What will the next steps be? Will future digital development include retouching and supplementation?

11 (3)
Works tell stories that go through the ages and always have to be retold. Picture stories need the pictures to be understood.
I would now like to block out the threats. What are the opportunities or what chances do we have?

A new chapter in restauration is opened. Let’s call it:

**post conservation period.**

I know: not everybody will be amused. Neither am I.

**Ohne Zweifel ist ein neues Kapitel aufgeschlagen. Nach heutigem Wortgebrauch könnte man von einer Post-konservatorischen Periode sprechen.**
II. Rethinking conservation-restoration theories of the 20th Century in the early 21st Century

After Brandi – Umberto Baldini and the modern Theory of Conservation-Restoration in Italy
Giorgio Bonsanti

Integration of Cesare Brandi’s “Teoria del restauro” in the context of eastern religions and cultures
Francesca Capanna

Conservation Ethics in the 21st Century: Towards an extended Toolkit
Claudine Houbart & Stéphane Dawans

On Principles and Objectivity
Wolfgang Baatz

Awareness of Materiality in Time and Condition. Thoughts on the relation between Art History and Conservation
Andreas Huth & Katherine Stahlbuhk
AFTER BRANDI – UMBERTO BALDINI AND THE MODERN THEORY OF CONSERVATION-RESTORATION IN ITALY

BONSANTI Giorgio

Abstract: Giorgio Bonsanti, as a contemporary witness of Umberto Baldini’s professional activities in Florence and his successor as Soprintendente of the Opificio delle Pietre Dure, gives an overview of the closely intertwined situation in theory and practice of conservation-restoration at Baldini’s time. He analyses terms and principles of Baldini’s Theory and Methodological Unity and emphasises this theory as well as the related methods of reintegration as a development of Brandi’s Theory and the methods of the Istituto Centrale per il Restauro in Rome. Furthermore, he shortly outlines actual Italian positions in theory and practice of conservation-restoration.

Keywords: Italian Theories of Conservation-Restoration, Methodology of Conservation-Restoration, Italian Re-integration Methods, Theory and Practice of Conservation-Restoration.

Cesare Brandi’s Teoria del Restauro was first published in 1963, its second edition in 1977 (Brandi, 1963; Brandi, 1977). Umberto Baldini’s Teoria del restauro e unità di metodologia was published in two volumes, the first in 1978 and the second in 1981 (Baldini, 1978; Baldini, 1981). Curiously, both Brandi and Baldini were 57 at the time of their theories. Umberto Baldini was born in the ancient Etruscan town of Pitigliano, in Southern Tuscany, in 1921; he died in 2006, aged eighty-five (Martusciello, 2013). An art historian, he had studied Pre-romanesque and Romanesque architecture with Mario Salmi and had taken his degree at the University of Florence in 1948. Very soon he started working at the Laboratorio di Restauro of the Soprintendenza, founded by Ugo Proacci in 1932. Baldini always remained involved in restoration, becoming the first Soprintendente of the newly born (1975) Opificio delle Pietre Dure, as a result of the merging of the Soprintendenza’s restoration laboratory with other restoration centres existing in Florence. This solution was planned after the flood of 1966 as the most advisable for meeting the enormous problems arisen in the conservation of the cultural patrimony because of this catastrophic event. Baldini was also Director of the Istituto Centrale del Restauro in Rome from 1983 to 1987, when he retired from his career in the Ministero dei Beni Culturali, a denomination which we could translate as Ministry of Cultural
Affairs, or Cultural Patrimony or Heritage. In the years after his retirement, he was involved in major projects of restoration, still very participant and active in the Italian scenery of conservation. I met him when still a student, in June 1966, when the Soprintendente Ugo Procacci, after taking a class on the History and Theory of Restoration at the University of Florence, of which I had edited the notes, put me to work with Baldini and with Baldini’s lifelong friend and working companion Luciano Berti, later Director of the Uffizi and Soprintendente in Florence. This happened while preparing a new edition of the exhibitions of detached mural paintings which had been held periodically in Florence after the second World War and had become very popular. After that exhibition in 1966, of which no catalogue appeared because of the flood which came soon thereafter, I always kept contact with Baldini, more or less closely; actually in a conference on lacunae held at the Salone del Restauro di Ferrara in 2002 (see: *Lacuna*, 2009), he pronounced me in front of the audience as “il mio vero successore”, my true successor; and here let me recall that I have been, first, director of the Ufficio Restauri of the Soprintendenza in Florence from 1979 to 1988, and afterwards, Soprintendente of the Opificio from 1988 to 2000. This last statement only to confirm that my familiarity with Baldini was very close and went on for forty years. When on December 14, 2011, a study day on Baldini was held at the Biblioteca degli Uffizi, I was entrusted with the task of dealing with Baldini as a theorist of conservation (Bonsanti, 2013a); and here I shall acknowledge that other times I have been allotted easier commitments. Colleagues from various Universities (my job at that time in my working career) openly questioned that one could speak of Baldini as a theorist, in spite of his Theory of Restoration having been the only one in Italy after Brandi, written by an art historian (meaning by that, not by an architect), to be published with the explicit declaration of being a “Theory” proclaimed in its title. Now, if I must try and consider once again this subject (Baldini the theorist), about which I am not sure I have reached a definitive convincement myself, I must emphasize as a first point that Baldini was, no question about that, a formidable “animale da restauro”, as I called him on that first occasion. I wouldn’t know how to translate this definition from Italian, but I trust it’s clear enough; its sense is that he was unquestionably born with the mission and destiny to devote his life to restoration. Baldini has been enormously influential in the Italian milieu of restoration for practical reasons: by creating the modern Opificio, by establishing science as an indispensable partner in the conservation process, and by giving birth to the second national (State owned) School of restoration at the Opificio, after that of the Istituto Centrale per il Restauro in Rome. Baldini promoted fundamental exhibitions, such as *Firenze Restaura – Il Laboratorio nel suo quarantennio*, in 1972, and *Metodo e Scienza – Operatività e Ricerca nel Restauro*, in 1982. On the other hand, I shall not omit that his brilliant achievements came sometimes together with little patience for administrative details, so that those who came after him (for instance, myself) had sooner or later to take care of some pre-existing problems, in order to ensure that in a given institution its internal structure would also be effective for the future, independently from the physical persons who ran the Institute at that point.
Now, a question which I left substantially unanswered in my contribution from 2011 is whether Baldini’s *Theory* preceded or followed his practice; in other words, whether the solutions he had applied to restoration problems, came as a result of his theoretical thought, or rather his theory came as an aftermath of the actual intervention, a deduction of some sort. On second thought, probably this question is ill stated, the two stages came intertwined and inseparable. A comparison which I deem instructive for me, to be understood by myself still before than by others, can be made with attribution, that operation which is typical for an art historian. Does an attribution come as a result of an analytical process, or does it respond to an immediate, almost instinctive reaction, which one corroborates afterwards establishing the proper net of connections? (Bonsanti, 2013b) But after all, this question pertains only to the person who is the active subject of this operation; because for all others, what is relevant is not the mechanism as much as the result, that is, whether the attribution is right or is not. And restoration in Florence in the Baldini years, if I set myself in a historical and objective perspective, which I must say I do because I am in no way a chauvinist and I always felt being a citizen of the world, has proven highly successful and effective, with a huge amount of brilliant methodological and technical results. But, what about Baldini’s *Theory*, at this point? His text, as far as I know, unlike Brandi’s, has never been translated¹, and I am afraid that a foreign reader would find access to it hard enough. Some factors concur: a prose which quite often proves tough reading (I counted a sentence of 39 lines), and the fact that Baldini made use of a very personal lexicon, based on terms which he had created himself, to which as a consequence one must get accustomed, take it or leave it, in order to proceed with his reading. Baldini’s way of writing also makes use of a large number of inverted commas applied to plain words, with no apparent reason, keeping the reader wondering whether there’s something there that he/she doesn’t catch. Baldini’s *Theory* anyway continues Brandi’s, there is no contraposition, a fact that hasn’t been understood by Brandi’s exegetes from his Roman environment (see for instance: Cordaro, 2009, p. 23). Baldini adopts Brandi’s recognition of three times in the life of an art work (“atto primo, secondo e terzo”), that is: creation, passage of time, and present moment (resulting in restoration); and emphasizes the concept of restoration as an act of critical philology. Lacunae are to be evaluated according to their “quantità”, quantity, and “modo”, manner, resulting in their “peso”, weight. He describes two sorts of lacunae, “lacuna perdita” (total loss of the image, or parts of an image) and “lacuna mancanza” (that is, something lacking, such as an abrasion or partial damage to a surface). In the first case, he elaborated the technical-optical solution named “astrazione cromatica”, in the second, the so-called “selezione cromatica”. In doing this, he also relied on the inputs coming from the restorer Ornella Casazza (Baldini’s second wife), author herself of the book *Il restauro pittorico nell’unità di Metodologia* (Casazza, 1981). I shall not dwell longer on this point, except for mentioning that while “astrazione cromatica” (not yet fully achieved on

Cimabue’s Crucifix, unlike what is commonly believed; it was perfected somewhat later) has not met wide consensus, “selezione cromatica” has become in Italy a very popular way of executing pictorial restoration (“restauro pittorico”, “ritocco”). In fact, I have steadily insisted that “selezione cromatica” is not “another way” for filling lacunae, as the Roman school has it, but a natural development and perfecting of Brandi’s “tratteggio”, widely known as “rigatino”. Baldini wrote at length about the act of “manutenzione”, maintenance, a term bearing for him a wider meaning than usual: almost all restorations are “manutenzioni”, and the word can also define, for instance, the rebuilding of an important architectural component of a wider context, such as the bell-tower of Piazza San Marco in Venice, newly erected in its former shape after the unforeseen collapse in 1902. Baldini as well as Brandi devoted some space to questions of architectural conservation, but unmistakably this was not their personal cup of tea, in this matter neither did they have a true interest nor sufficient competence and knowledge (Baldini more than Brandi, anyway). Characteristically enough, Baldini added to the title of his *Theory* the specification that he would also be dealing with “Unità di metodologia”, methodological unity, meaning that his *Theory* would be extensible to all arts. He aptly insisted that a restored art work must be related to some surroundings, which called for a series of measures; so that on the whole we can say that he was rather an “interventista”, that is, in favour of meaningful (I am not saying “heavy”) completions and newly created collateral parts in order to place an art work in a proper setting. I underscore that this sort of solution is theoretically more admissible, in the Italian tradition, by having the added parts made differently from the original in some way, so that they become easily recognisable; a choice on the other hand which is not always feasible nor advisable in architecture, as Baldini himself knew. It remains to be pointed out, in this extremely succinct résumé of his thought², that very interestingly he devoted himself in the *Theory*’s second book to creating a sort of objective system for cleaning a painted surface, or rather, as I prefer to say, for removing unwanted substances from it. He did that by resorting to mathematical relationships between the various areas, a sort of equations; the idea was to demonstrate through the objectivity of numbers, the correctness of the traditional Italian approach to the cleaning of polychromies, done with careful awareness of the different degree of alterations of the single zones.

Now, looking back to Brandi’s and Baldini’s *Theories*, what strikes me as odd is how they did not seem to consider what was new that had appeared in Italy in the field of protection and safeguard of cultural patrimony. In 1965, the voluminous *Proceedings* of a Ministerial Commission (the so-called Commissione Franceschini) had been published, which officially introduced in the Italian culture the term and concept of “Bene Culturale”, cultural goods or patrimony or asset; whatever the name, the idea was to comprise among the objects deserving public attention, all those which could be the subject of an interest of any kind shared by a community; that is, not only “opere d’arte”, works of art, but also those of historical, anthropological, documentary importance as well. No trace of this relevant step towards

² For an excellent statement on Baldini’s theory, see: Ciatti, 2009, pp. 381 – 387.
modernity is to be found in Brandi’s famous definition of conservation, which he repeated in 1977, that restoration exists if and when one has been able to recognize an object as a work of art, and that restoration is based on the item it applies to; nor did Baldini seem to care about that as well. So goes Brandi: *Restoration consists of the methodological moment in which the work of art is recognised, in its physical being, and in its dual aesthetic and historical nature, in view of its transmission to the future* (Brandi, 2005, p. 48); which, if one reads carefully, does not by all means imply that a real act of restoration is actually carried out. I myself have suggested a different approach (2004, published 2006, see: Bonsanti, 2006) where it is precisely the performer of the act of conservation who determines whether what he is doing can be described as restoration. Paradoxically, according to this manner of dealing with the problem, one has restoration if what is done, is done by a restorer; so that the basic question does not concern the object as much as the subject. Briefly said this is my definition: *Restoration is an activity aimed to the transmission to the future of a cultural property so as to maintain its existence and ensure its fruition, respecting its particular identity (a sum of originality plus integrity), and inside a multidisciplinary project of conservation. Restoration consists in a material operation, requesting a specific professionalism obtained through a dedicated formative process, so as to provide adequate capacity both of programming as of manually performing an intervention* (Bonsanti, 2006, p. 67)\(^3\). But my time is running short, and to speak about the further developments of the theory, or theories, in conservation in Italy would call for at least another paper, so that I postpone this to a future occasion. Let me just point out to the existence, for instance, of recent studies on the theory of conservation of contemporary art. I only need still to make two points. The first: theories are to be found also where one does not expressly read the word “theory” in their title, so that for the elaboration of methodological concepts one should rather turn to many other sorts of printed pages. I am thinking of the concepts of minimal intervention, retreatability or repeatability, and of my personally favourite compatibility (of all kinds: chemical, physical, mechanical, aesthetical, historical). All these concepts are a huge part of the issues treated in conferences promoted by the most influential professional Italian associations, such as Arcadia Ricerche, for the yearly meetings in Bressanone, South Tyrol, called “Scienza e Beni Culturali” (from 1985 onwards); the review of conservation *Arkos*; the restoration periodical *Kermes*; IGIIC, the Italian Group of IIC, since 2003; and of course, the impressive editorial activity of the Opificio delle Pietre Dure and other restoration centres. Moreover, I should also mention documents of various sorts, and what one discerns in real interventions of conservation: what I mean, is that ideas and concepts can find many varied ways to enter theoretical debates. My second point is that clinging to theories is in my opinion respondent to the Italian tradition of favouring philosophical approaches to problems, from the Antiquity onwards; while the Anglo-Saxon tradition rather resorts to Ethics, as one reads in so many documents from professional associations and institutions. Not for nothing one has “Teorie del Restauro” on

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one side, Codes of Ethics on the other. I suspect that possibly this dichotomy has something to do with the differences between the Catholic and the Protestant tradition. Anyway, at the end, no matter what term we choose to apply, theory or practice, what is imperative is that the eventual result is determined by best practices, and maybe these will respond to the best theories.

Fig. 1 Umberto Baldini with Francesco Cossiga President of the Italian Republic, Giovanni Spadolini President of the Italian Senate and former Prime Minister, Massimo Bogianckino Mayor of Florence (end of the 1980es)

Fig. 2 Florence 1992: Giorgio Bonsanti, Umberto Baldini, Marco Ciatti
Fig. 3 Umberto Baldini

Fig. 4 Umberto Baldini with architect Francesco Gurrieri at the Accademia delle Arti del Disegno in Florence

Fig. 5 After the flood (Florence 1966): the restorers Edo Masini, Gaetano Lo Vullo, and Umberto Baldini (c.ca 1970)
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Abstract: The Istituto Superiore per la Conservazione ed il Restauro (ISCR) has always been involved in the diffusion of Cesare Brandi’s restoration theory and practice in the international panorama.

Since 1950 Brandi’s theory has spread through model interventions, scientific advice and the tutoring of international students. Those factors lead also to an increase of trust and esteem towards the ISCR.

In the 21st century, the ISCR started to be involved in the establishment of new conservation schools by foreign countries. Moreover, it promoted translations of the “Teoria del Restauro” (theory of conservation) book in English, French, German, Spanish, Portuguese, Greek, Serbian, Russian, Chinese, Japanese and Polish. This permitted a deepened understanding and integration in the local culture of Brandi’s theory, rather than the direct execution of the fifties.

For those reasons, today the Italian conservator-restorers face the new opportunity and growing perspective: looking at Brandi’s theory in direct contact with the cultural context in which is being applied, through the dialogue with local, highly trained professionals.

The importance of this dialogue has become particularly evident during collaborations with eastern countries, with a particular interest in which part of the theory can merge and which will diverge with the religious and cultural principles. Especially, the experience of the ISCR in Ajanta in India (2004-2018) and Kathmandu in Nepal (after the 2013 earthquake) will be discussed.

Keywords: Brandi, Theory of Restoration, mural paintings, India Ajanta Cave, Nepal Swayambhunahnt
which it may have suffered in physical condition over the years, as well as the changing relations of ownership into which it has fallen.».

Walter Benjamin (Das Kunstwerk im Zeitalter seiner technischen Reproduzierbarkeit, 1936, Translated: by Neal Putt)

In recent years the Istituto Superiore per la Conservazione ed il Restauro has become more intensely involved in activities of cultural exchange and international cooperation. ISCR personnel have enthusiastically supported the increasing number of projects aimed at sharing Italian know-how in conservation and restoration. These current activities maintain the vision of internationalisation of restoration theory and practice which Cesare Brandi advanced from the Italian side, as early as the mid-20th century. Beginning in the early 1950s, Brandi identified three vehicles for the transmission of the principles fundamental to contemporary conservation-restoration: first, the offer of technical-scientific consultation; second, the participation in complex, challenging, and therefore exemplary treatments; finally, participation of foreign students in the three-year courses held at the Institute. One of the benefits from the diffusion of Brandi’s thought and technical action on the part of the Italian conservation-restoration sphere was an increase in stature for the Institute, and of trust in its professional standards.

In the late 1990s and early 2000s, the Institute received requests from countries such as Egypt, Serbia and China for technical support in founding conservation-restoration schools adhering to the Italian model. At roughly the same time, the ISCR came to understand that harmonisation and assimilation of the theoretical base of Italian operations with other languages and cultures was of primary importance. Given this, the Institute promoted the translation of Brandi’s "Theory of Restoration" into English, French, German, Spanish, Greek, Polish, Serbian, Russian and Chinese, intending to better communicate the theoretical precepts at the core of all operations. Today, the staff of the Istituto Superiore per la Conservazione ed il Restauro, and indeed all Italian conservator-restorers, view the opportunity of foreign missions as a road towards growth, in particular through constructive debate with experienced colleagues, bringing our base theory into dialectical relation with new contexts.

Our missions to Asia and the Far East have been especially stimulating because of the challenges in understanding the potential lines of congruence and divergence between Brandi’s theory and the cultural and religious principles of such countries – at great distance, and superficially greatly "different". Our Institute considered it essential to understand the theological and ideological basis for the concept of heritage itself, when our conservator-restorers were called to participate in preservation projects conducted in India and Nepal. Our encounter with Buddhist culture led to particularly interesting considerations.

From 2005 to 2008 the ISCR cooperated with Indian administrators and technicians on a cooperative project for conservation of the Second century BC to Fifth century AD mural paintings of the Ajanta Caves.
Fig. 1 The rock-cut complex of Ajanta, ISCR Photo by Edoardo Loliva

Fig. 2 Ajanta, the Italian team with the Indian technicians, ISCR Photo by Edoardo Loliva
It was fundamental that the Italian team deepened its knowledge of Buddhist philosophy, which until then had clearly been superficial. Our conservator-restorers and scientists suffered from distorted perceptions, founded on commonplace sayings – such as those concerning "life in the here and now". The aphorism of "living in the present", would seem to warn against dwelling on the past, and so leave little room for conservation of historic vestiges.

However, the bibliographic and archival research conducted as the project progressed revealed how the Indian subcontinent had in fact demonstrated strong appreciation of Italian conservation-restoration knowledge as early as the late 1940s, when the first requests for ICR technical consultation had arrived. From this period, we found a series of letters addressed to both UNESCO and Cesare Brandi, written by Dr. S. Paramasivan and Dr. B. B. Lal, chemists with the Archaeological Survey of India, communicating pressing requests for opinions on the Tanjore mural paintings. Not long afterward, Dr. Om Prakash Agrawal, also an Indian chemist, took his first steps in conservation-restoration thanks in part to his experience as a bursary recipient with the ICR.

Fig. 3 O.P. Agrawal with Paolo and Laura Mora at the 1979 ICCROM General Meeting in Palazzo Barberini in Rome – ICCROM Archive
His path then led him to serve as founding director of the National Research Laboratory for Conservation of Cultural Property, and as founder (in 1984) and still Director General of the Indian National Trust for Art and Cultural Heritage. Contacts between our own Institute and INTACH have remained frequent through the decades. A core theme in over 30 years of correspondence has been the identification of technical solutions to deal with grave problems of deterioration in the materials of Indian monuments. Conservation scientists and practitioners in both countries have emphasised the concept of studying the work of art in context, including all its factors of deterioration, such as thermo-hygrometric variation, biological attack, and light.

Fig. 4 Ajanta Cave 17, Interior east wall, the elephants proceeding by holding their trunks were chosen as a symbol of the cooperation project, ISCR Photo by Edoardo Loliva

Returning to the matter of the Ajanta mission, we can begin to understand that the message of Buddhist teachings could indeed be oriented towards conservation, and development of the site's values. We see this in Discourse 79 of the Majjhima Nikaya II: "Udāyi, concern yourself not with the beginning and the end. I will teach you: when this is, this comes to be; when this arises, this arises. When this is not present, this is not, and when this cease, this cease." What we read here, particularly in the words "concern yourself not with the beginning and the end", is not a counsel against accepting the effects of time – in our case in the monument. Instead it would be an urging to the individual or agent to leave aside remorse for errors made, laments for time lost, and missed opportunities.

At Kathmandu, following the earthquake of 2015, we were called to support colleagues
engaged not only in the conservation of material heritage, but also in recovery as a severely afflicted people. In this case, it seems that a more comprehensible reference might have been to the opening of the "Discourse on knowing the better way to live alone" of the Bhaddekaratta Suttam, in which we read: "Do not pursue the past. Do not lose yourself in the future. The past no longer is. The future has not yet come." And this might suggest to those addressing the reconstruction that they adopt solutions of entirely "resurfacing" the lost temples, or substituting the lost pictorial or sculptural decoration, rather than attempting recovery and restoration. In fact, our Nepalese colleagues had begun by energetically undertaking the reconstruction of their buildings *ex novo*, forcefully affirming the cultural requirement of new sacred symbols, in brilliant colours and perfect condition. The value of authenticity lay in the reconstruction of ancient forms "where they were and as they were". In this, our colleagues were supported by the conclusions from an international symposium titled "Revisiting Kathmandu", held in that very city only two years earlier, which had read the Nara Document of 20 years earlier as expressing the validity of this same principle.

Given the 2013 symposium and events of 2015, it seemed there would be no margin for the recovery of the original material, which as Cesare Brandi said, "simultaneously consists of time and place for the restoration intervention" (Brandi, [1963] 1977, quoted from the English edition of 2005, p. 37). In dialogue with our local partners, perhaps due to the traumatic events of the earthquake, there was no opportunity for this further consideration: "That the
fact that the physical means needed by the image to manifest itself can be conceived as representing a means, and not an end, should not detract from the investigation of what constitutes the material of that image; this is an investigation that the idealistic aesthete generally prefers to neglect, but which the analysis of the art work ineluctably presents."


Dialogue with our local partners must be constructed on the basis of reciprocal comprehension and acceptance. It is necessary then that we investigate our relative philosophical themes and cultures concerning the relations between humankind and time. Our aim is to understand the points of divergence and conjunction on such themes, identifying the considerations that can be considered closer to Western thought. It suffices to stop for only a moment, and reflect, to arrive at the conclusion that the concept of "as is, where is " has the same roots in the East as in the West. In fact, in both cases, the concept of the here and now arises from philosophical considerations of the individual with respect to eternity.

Saint Augustine, the father of the hermeneutics of time, arrived at the same conclusions as indicated in our previous sutra of Siddhārtha Gautama. In his “Confessions” we read: "Thus it is not properly said that there are three times, past, present, and future. It might be said rightly that there are three times, in this way: a time present of things past; a time present of things present; and a time present of things future. For these three do coexist somehow in the soul, for otherwise I could not see them. The time present of things past is memory; the time present of things present is direct experience; the time present of things future is expectation." (Augustinus, date, XI, 20, 26) "I forget what is behind, and do not distend but extend, and not to things which shall be and shall pass away, but to those things which are before. Not distractedly, but intently, I follow on for the prize of my heavenly calling." (Augustinus, date, XI, 29, 39)

Time, for Saint Augustine, is thus an interior dimension; it is the conscience itself which dilates to conjoin present with past and future. To forget things past is the means of renouncing the things of this world, and of elevating oneself to God. It is evident then that our geographically distant cultures are in harmony in the concept that the past is to be avoided, in the sense of excessive attachment, yet see its value as the place of our roots. In fact, human reflection in every latitude agrees on the principle of self-determination of man, distended and extended in the present, towards "the prize of heavenly calling", or to "dharma".

Comprehending that we are objectively free of ideological divides, we strengthen our conviction that some founding concepts of the Brandi’s theory of restoration, deriving from shared philosophical principles, can also be shared and posited as the basis of dialogue in heritage recovery projects conducted by intercultural teams. We quote here from a comment by Cesare Brandi titled "Time in Relation to the Work of Art and Restoration" (brandi, [1963] 1977, quoted from the English edition of 2005, p. 61-64). His intention with this text was to emphasise how the aim of restoration should be that of respecting and conserving the present moment of the work of art, as the only one that contains in itself the signs of the past
and the expectations of the future. He asserts: “At the instant of the actual reassumption of the work of art into consciousness, whether it occurs in a few seconds or hundred centuries, if the work of art is to be experienced as taking active part in such consciousness (in a period different from its own) it must lend itself to acting as a stimulus. This leads to what has been called suggestive interpretation. In other words, it will not be enough for the work of art to strike consciousness in an instant – an instant that exists in historical time – instead the extra-chronological ‘present’ of the work must also be brought into play […] We need not belabour the point any further in order to state that the only legitimate moment for the act of restoration is the current moment of conscious awareness of the work of art. At this time, the work exists in the moment and is historically present; yet it is also part of the past and, at the cost of not being part of human consciousness, is thus part of history”.

We see that it becomes possible to share the principle with our colleagues, that: "to be a legitimate operation, conservation must not presume time to be reversible, nor that history can be abolished." In consequence, we can jointly accept that – except in particular circumstances, such as traumatic events of natural disasters, events of war or terrorism – renewal, refinishing, and reconstruction would not be the appropriate solutions in pursuing the objectives of conservation.
Bibliographic References


Abstract: In answer to the question raised by the conference, Are our Conservation-Restoration Theories and Practice ready for the 21st Century?, this paper advocates an opening to concepts coming from disciplines outside the conservation world, in order to address old and new heritage challenges from a fresh perspective. These concepts are not supposed to replace tools inherited from 20th Century theoreticians, but to unite with them in a broader toolbox dedicated to conservation professionals. Considering recent reconstruction projects as a magnifying mirror of current heritage dilemmas, the paper, using texts written in a totally different context by Anglo-Saxon logicians, concentrates, as an illustration, on the ways in which intentions underpinning a reconstruction can affect the very identity of the object or monument concerned.

Keywords: Identity, authenticity, reconstruction, anthology

1. Introduction

In his now classic essay on the “régimes d’historicité”, the French historian François Hartog (2003) has very well described the effect of globalisation, democratisation and mass consumerism on our relationship with the past and thus, with heritage. In the course of the 1970’s, at a time when the ink of the Venice Charter was barely dry, postmodernity triggered a loss of collective anchoring and memory, paradoxically accompanied by an amplification of the thirst for commemorations, in the name of identity or heritage. Pierre Nora’s great endeavour Les lieux de mémoire, fully corresponds to this “presentism” era, including aside from monuments, museum and archives, intellectual constructions such as the Larousse encyclopaedia (Nora, 1989). It very well illustrates the “extension of the heritage domain” as defined by the sociologist Nathalie Heinich (Heinich, 2009). In our “post-monumental” era, anything can possibly become heritage, regardless of scale, of artistic qualities, of age or ontological degree – from tangible to intangible. This is a sign of times. Following the example of Nelson Goodman replacing the essentialist definitions of art with the question
“When is there art?” (Goodman, 1976), we should consider focusing on a dynamic and operational definition of heritage. The question “When is there heritage?” better corresponds to contemporary cultural studies and our attempt to understand “heritagization”; it contains the idea of a performative action, implying new actors, new dynamics, new process, new research questions, new difficulties and new opportunities. Moreover, the gradual globalisation of heritage debates starting with the 1931 Athens Conference and culminating in 1972 with the World Heritage Convention has led the Western World to reconsider its certitudes about sometimes alien traditions and concepts: the Nara Document is the expression of this phenomenon.

The broadening of the object of heritage studies, together with a confrontation with other ways of defining, understanding and living heritage are wonderful opportunities to open one’s mind and avoid taking cultural statements for granted. But we can’t deny that some recent or current projects which wouldn’t have been an option only twenty years ago also question our fundamentals: the actual or dreamed reconstructions of disappeared monuments, such as the Dresden Frauenkirche, the Saviour Church in Moscow, or the Tuileries Castle in Paris, are only a few examples. If one could object that these reconstruction projects are but marginal to conservation, a thematic issue of the French journal Monumental on “Completion/Restitution/Reconstruction” has convinced us to consider this increasingly regular phenomenon as a magnifier mirror rather than an exception to more conventional practices. After addressing very diverse reconstruction case studies, ranging from the already mentioned examples to the post-war “restitution” of the Mostar bridge and the “reconstitution” of Mies’ Barcelona Pavilion, the publication ends with a debate led by the architect François Chaslin, addressing the issues of authenticity, true and false, matter, legibility, as well as “social demand”. Beyond the refusal of some of the participants to question the very principle of “restitutions”, limiting the debate around the quality of the results (Bercé, 2010, p.102), the discussion appeared to conflate operations led by very different principles. Is it correct to consider that “when you replace anything in a monument, you make nothing but something new”, and that as a consequence, “the minimalist substitution of a damaged stone by a new one, is thus restitution”? Or can we simply consider that “false is not as good as true, but that doesn’t mean that a copy is worth nothing”? And especially, which place should the “social demand” occupy? Pierre-Antoine Gatier, chief architect of historical monuments, rightly underlines that “globalisation, (...) anxiety, (...) the rise of culture” leads us to “territorial, cultural projects driven by, not to say, some kinds of nationalism, thus identity projects” (Bercé, 2010, pp.101-103). Are these motives sufficient to justify anything and everything?

In 2000, the Riga Charter observed (ICCROM, e.a. 2005), in the context of the Eastern bloc collapse, that “replication of cultural heritage is in general a misrepresentation of evidence of the past, and that each architectural work should reflect the time of its own creation”, but that “in exceptional circumstances, reconstruction of cultural heritage, lost through disaster, whether of natural or human origin, may be acceptable, when the monument concerned has outstanding artistic, symbolic or environmental (whether urban or rural) significance for regional history and cultures” (art. 5-6). Even if, beyond the need to prove the necessity
of a reconstruction, through a consultation of national and local authorities as well as the affected communities, the document subjects the operation to the existence of a sufficient documentation, preservation of the in situ remains and the absence of falsification of the context, it nevertheless implicitly implies that the “social” demand can be a sufficient condition to justify a reconstruction. It means that the reasons leading to a reconstruction can make it acceptable, when more general conservation principles would reject it, based on the lack of intrinsic values of the reconstructed result. May then the concept of authenticity, defined by the same document as “a measure of the degree to which the attributes of cultural heritage (...) credibly and accurately bear witness to their significance” (art. 4), be obliterated?

We have to admit that during the last decades, the concept of authenticity has been caught in an inflationary economy: in 1992 already, David Lowenthal pointed out what he called the “cult of authenticity”, illustrated by the fact that the words “authentic”, “authenticity” and “authentification” were used five times more that in the seventies (1992, p.184). Despite of this, we believe that this concept remains an important regulating ideal: if we accept a complete relativism, we leave the field free for anything and everything and the confusion encouraged by some media aimed for the general public. As an example, the website of the association promoting the reconstruction of the disappeared royal castle of Saint-Cloud¹, near Paris, uses examples as dissimilar as the post-war reconstructions of Saint-Malo or the Warsaw castle, the duplication of the Lascaux caves, the restoration of Carcassonne, and the reconstitutions of the ship L’Hermione and the city of Colonial Williamsburg to justify their intentions. Mentioning this project, that refutes any political or identity approach, but prides itself on a situation on “the most touristic axis of the planet”, that is, the Paris-Versailles axis, leads us to mention that tourism industry is strangely absent from the issue of Monumental. Yet it underpins or at least, picks up many reconstruction projects: heritage world shows less and less strength in its resistance to this disneylandisation process, a trend that leads, slowly but surely, to a loss of substance of heritage, that we have called “heritage in the state of gas”, an allusion to the French philosopher Yves Michaud (Houbart & Dawans, 2012).

Let’s come to the question raised by the conference: Are our Conservation-Restoration Theories and Practice ready for the 21st Century? We are far from rejecting theories from the past which provided us with effective and stimulating tools, but facing questions raised by such controversial issues, powerful theories of what we could call the “monumental era” might not always prove sufficient. Of course, concepts elaborated by theoreticians such as Riegl or Brandi remain effective – values, potential oneness, aesthetic and historical cases, ... – but the systems to which they belong seem to more and more fail to address the whole complexity of contemporary heritage issues. This phenomenon is not new: the repeated attempts to get the Venice charter revised from the 1970’s on (Houbart, 2014), and the multiplication of thematic documents and charters adopted in the last decades are the best illustration of this impossibility. But while postmodern thinkers made us suspicious towards large systems, they also made us more modest and above all, more inclined to

¹ http://www.reconstruisonssaintcloud.fr.
respect “bricolage”, as a most helpful attitude after a shipwreck. We believe that the current return to a case by case approach – as promoted from the interwar period by theoreticians such as Ambrogio Annoni (1946) – often mostly relying on practical constraints such as reuse and technical performances, combined with the use of decontextualised concepts – separated articles from the Venice Charter, for example – and practices – using the Ise shrine periodical rebuilding to advocate any reconstruction project – doesn’t mean to accept a cynical relativism in answer to the cause of a capital-intensive machine.

Almost twenty years ago already, Françoise Choay (Choay, 2000) had pointed out the necessity to abandon a “rhetoric of authenticity” in favour of a “set of operating concepts”. Reflecting on reconstruction projects, raising questions of identity, has convinced us of the incompleteness of the toolkit we inherited from 20th Century theoreticians. Though still perfectly relevant to address the issues that were already present at the time when they were elaborated, they might prove inappropriate to address new types of heritage, new concerns, new issues such as cultural tourism, inclusive approaches, modern heritage or the digital turn. In this context, we have been drawn to look at texts outside the conservation sphere, starting from ontology of art and analytical philosophy. We discovered that taking a step to the side could provide a stimulating insight on heritage conservation problems. In fact, it is not surprising that, facing what many have called a heritage inflation, some new actors could help us. Now that heritage has quitted the monuments sphere to encompass any material or immaterial reality worthy of conservation and that the expert point of view is challenged by the ones of a broad range of stakeholders, from the user to the investor, it becomes interesting to look at this reality from different points of view borrowed to a wide range of human sciences such as law, communication, aesthetics, semiotics, anthropology or philosophy, to name a few.

Together with our colleague Muriel Verbeeck, we are currently gathering texts in order to propose an anthology that could complement the existing ones in helping to fill conceptual gaps and throw a reinvigorating light on new problems raising old questions. The originality of the project is to address movable and immovable heritage at the same time, and to choose most texts outside the conservation world, with fields such as formal logic, ontology of art (Nelson Goodman) and even, literary theories (Genette) (Houbart & Dawans, 2011-1 et 2011-2). Some of these concepts are already known by a number of conservators – for example, the useful distinction proposed by Nelson Goodman between allography and autography (Goodman, 1976; van de Vall, 2015) –, but some others, much less: among the latter, we will develop, as an example, the impact of intention on identity, based on texts by Anglo-Saxon logicians, and more particularly, Theodore Scaltsas (1981).

2. Facing the expectations of the heirs

Patrimonial issues considered insoluble, are sometimes simply paradoxes that philosophy has not yet solved after 25 centuries. This is the case of the restoration of the boat of Theseus which, according to Plutarch, already animated the debates on the agora in the 5th
Century BC, and about which logicians and other philosophers of language still argue today. The stakes are essential since it is a question of assessing whether the vague character (the vagueness) of an object is ontological (the vague object would then exist) or more simply reveals human indecision – a problem of imprecision in the relationship between things and words, which could reveal the shortcomings of the formal or transcendental framework that, according to Kant, allows us to shape the data of the experience.

Difficulty exists both for a ship or a cathedral and this raises two fundamental questions: (1) If I gradually replace the material of an object so that it remains functional, to what degree of replacement of the material can I still speak of the "same boat" or the same cathedral? 51 percent? (2) Subsidiary question: if while replacing the boards of the ship of Theseus, an "evil genius" takes the old boards to rebuild the boat to the identical, which of the boats is that of Theseus, the one that has seen its boards replaced in a continuous spatio-temporal logic or the one reconstituted by the set of original boards?

The very numerous scientific articles that attempt to bring a solution to the puzzle clearly fall outside the scope of our competencies and even of our purpose. But it is nevertheless very interesting to note that the logicians cannot avoid, in their logico-mathematical reasoning, to take into account psychological elements, even if it is with regret, and to try to exceed them. David Wiggins, for example (Wiggins, 2001, p.101) faces the difficulty by questioning the expectations of the one who commands (or not) the restoration of the object whether or not it is of a heritage nature. From the sacred boat he moves to the example of a watch:

When someone gives his watch to the watchmaker to clear and repair, the thing he wants back may, on a very sober and literal minded construal, be either that very watch (by the unproblematic criterion) or else a watch with a certain obvious relation to his (a watch of the same kind, in better working order, enjoying considerable community of parts, etc.). If he wants more than that, if he thinks his watch as an antiquarian or historical relic from a better age or as a work from the hand of a great artist, then he should take more precautions than we normally do take. He should care about its original constitution. The truth is though that, for some practical purposes, we simply do not mind very much about the difference between artefact survival and artefact replacement. (A negligence that in no way undermines the real distinction between these.)

And that leads him to grant what Kant calls sensitive mobiles, in other words different interests or expectations that anthropologically disturb the reasoning of the logician: “The antiquarian who favours the reconstituted ship has a different interest, it might be said, from the priest who favours the continuously repaired ship. Both are stuck with the identification ship but, having different interests, they do not mean quite the same thing by “ship”” (Wiggins, 2001, p. 94).

This clashes the logician's understanding and Ferret (1996, pp.109-110) does not want to be satisfied with a psychologising demonstration, so, referring also to Wiggins, he states that “(...) if we simply want to say that the boat of Theseus does not know that it is the boat of Theseus and that ultimately it is up to us – priests, archaeologists, navigators, philosophers,
etc. – to decide”, that does not mean that a strictly logical answer is not possible. If the
French logician is right, it must nevertheless be admitted that the solution is delayed, what
forces us to use, as Descartes would have said, a “provisional morality” in terms of heritage.
What we can learn from this debate, which takes place in a disciplinary field quite foreign to
ours, is that in the field of culture or heritage, it is up to humans to decide, depending on their
expectations. And we find again this idea dear to Riegl! that we cannot privilege all the values
at the same time, those of the priests and those of the antique dealers, in particular. In terms
of identity and authenticity, it is up to us to define from which point of view we restore the
object. Let’s imagine a grandson who inherits a knife from his grandfather. He can consider
himself in possession of the knife of his ancestor, even if the latter had replaced the blade
and the father of the boy, the handle – a strange logic that should please the philosopher
Lichtenberg.
Anyway, these arguments of logicians draw our attention to phenomena that cannot leave
the architect indifferent. This is so in the way we collectively interpret the world: in the face
of undecidable “we make the decision”, as Ferret says, from expectations or interests. The
same is true of the fine distinction we make between what we call a forgery and what we
call a copy. The first is not in our eyes assimilable to the second for the sole reason that his
intention is unhealthy, since it is to deceive us – one of the conditions thus defined under
the pen of one of the French analytic philosophers: “someone must try to pass off as an
X what is not an X” (Darsel, 2007, p. 191). In the field of heritage conservation, Ségolène
Bergeon-Langle and Georges Brunel confirm that a forgery is an “object or document
intentionally produced to deceive on its origin the one to whom it is presented” while the copy
designates more generally "an object produced in imitation of a another by the action of an
individual". In other words, “an object is not “wrong" as such, but in relation to the intention
behind its manufacture or presentation” (Bergeon & Brunel, 2014, pp. 117, 183). Copies
and counterfeits may, if viewed without interest, be formally or qualitatively identical and
therefore interchangeable in a museum that would assume reproduction for pedagogical
reasons.
That these human interferences disturb the logicians should not worry the curator, because
for him, inheritance issues are primarily psychological and he must simply assume them.
What about reconstructed buildings? Can the intentions that led to their reconstruction be
taken into account in the criticism of authenticity? By suggesting a positive answer, Theodore
Scaltsas’ text probably only makes the debate even more complex. It does, however, have
the merit of highlighting the fact that any architectural act, and therefore, of restoration or
reconstruction, is moved by an intention that gives meaning to the subject, imprints itself in
the heart of its identity, and conditions its future.

3. Reconstruction and intentions

Published in 1981 in Philosophy, journal of the Royal Institute of Philosophy in London,
the paper Identity, Origin and Spatio-temporal Continuity is a goldmine for philosophical
reflections on heritage. Questioning the necessary character of spatio-temporal continuity for the identity of an object, Scaltsas addresses the importance of the object’s history and its “recoverability” after destruction. On the basis of the examples of a broken, then recovered vase and of a prefabricated house, dismantled and re-erected, he sets the condition, in order for two objects to be considered two phases of a same reality, that whether their form, or their fragments (the acceptable size of these depending on the techniques available at the moment and within the culture in question) remain spatio-temporally continuous during the period starting from the creation of the object until the recovery and including the destruction phase. Without going into details, let’s mention that this idea helps us to make a useful distinction between operations such as anastylosis (continuity of fragments) or progressive replacements of the matter (continuity of form) and many reconstructions called “identical” that don’t meet any of these conditions.

After addressing the ways in which an object temporarily ceasing to be could, under certain conditions, keep its identity, Scaltsas questions the essential character of the object’s origin. The fact that the vase or the prefabricated house could keep their identity through time despite a phase of non-existence followed by a recovery proves the non-essential character of their origin: whereas the original vase had been created in the potter’s workshop, it is restored by another technician, and a similar reasoning can be applied to the prefabricated house. In order to turn down the opposite argument, according to which the origin would remain the same in all cases – the initial creation – and the successive restoration would be a simple “coming to be”, Scaltsas uses the example of a boy who, after building a pile of cubes in the corner of his room, would decide to keep it. Doing this, he opens an original perspective on architectural reconstruction.

In a first scenario, the boy, accidentally destroying the pile two years after its erection, rebuilt it. In this base, there is no doubt for Scaltsas that the new pile is numerically identical to the first one, despite a different origin. In order to underline that the two piles have indeed, in this case, different origin, he claims that even if it was the mother of the boy, and not the boy himself, who had by accident destroyed, than identically rebuilt, the pile, in her kid’s room, it would still be considered the same pile, already existing for two years at this place – despite a different origin. By contrast – and this is very interesting for us – if the young brother of the child, jealous of his brother’s pile, would destroy and identically rebuilt it at the same place, the two piles, still having two different origins, would in this case be two different objects, despite their identical materiality (Scaltsas, 1981, p. 399).

What makes the difference in considering the piles the same or not is not whether the structure of the second pile is an original conception or not, but whether it is intended to be the same pile or not. In the case of the accidental destruction of the pile the reconstruction was intended to produce the first pile, while in the case of the younger brother’s destruction of the pile the reconstruction was intended to produce a new pile. The importance of the intention of the reconstruction can be so significant that if the mother of the older child destroyed the initial pile in order to recreate it in the summer house in the corner of the child’s room – so that the child would not
miss his pile – the pile would be considered to be the same, despite the change of location – a significant factor in the determination of the identity of the pile in its own two year history. So, having a different origin does not imply that two objects cannot be numerically identical (i.e. be phases of the same object); but the intention of reconstruction can make all the difference in determining whether the new object is numerically identical to the old one or not.

If we come back to the thematic issue of Monumental we already mentioned, it is clear that in many cases, political intentions have led the choice to reconstruct. In Warsaw “very deep motivations, linked to the very identity of the Polish people and its search for historical continuity, have prevailed over one of the major criteria used by conservation doctrine, the respect of historical authenticity”. In Mostar, “the high symbolic value that the bridge represents for the people” justifies the choice of an identical reconstruction (Bercé, 2010, pp. 44, 46). In Moscow, “sanctuaries embodying the expression of history as well as the Russian <soul>” are evoked, a clear political choice “in order to underline the rejection of the Soviet regime and the return to ideological values of pre-revolutionary Russia” (Bercé, 2010, pp. 88, 91). In Germany, the Frauenkirche and the Hohenzollern castle aim both at “promoting the image the German society has of itself”. Finally, if in Paris, there is no doubt that “the partisans of the reconstruction of the palace of the Tuileries are moved – a hundred and forty years later – by a desire of Napoleonic repentance against the Communards of 1871”, we learn that even in Barcelona – where the reconstruction of the Miesian manifesto could have appeared as the simple will to make accessible to the architects one of their favourite references –, the first democratic government in Barcelona to emerge from the Franco regime would have bet on the operation to give back to the city a part of the cultural prestige of the interwar period, when it was “at the forefront of world architecture” (Bercé, 2010, p. 76). Do these intentions, different from those that led to the first creation of these buildings, affect the identity of these buildings? Apart from any technical considerations related to drawing or materials, can we speak of “identical reconstruction”? Scalsas's text suggests a negative answer, and we would tend to follow him.

It seems easy, of course, to oppose the argument that once (re)constructed, a monument escapes the intentions that led to its (re)construction; that these intentions would not be inscribed, contrary to what we suggested above, at the heart of its substance. We can admit that this is the case of buildings immediately rebuilt after a destruction caused by natural or accidental factors, such as an earthquake (Basilica of St. Francis of Assisi, L'Aquila) or a fire (La Fenice, Windsor Palace), and where the reconstruction has no other intention than to repair the loss and allow the building to live on. On the other hand, reconstructions such as those we mentioned, driven by essentially political intentions, seem to us to be transforming the very nature of the monument, from the status of object with an artistic and / or historical value – Régis Debray's “monument as a trace” and / or “monument as a form” – to that of intentional monument – a “monument as a message”. It must no longer be looked at in the “once upon a time” mode but in the “remember” mode (Debray, 1999, p. 32).

Architecture is obviously much more complex than a simple pile of cubes, and any
reconstruction of a missing monument requires choices, indissociable from the underlying intentions. In Barcelona, for example, architects limited themselves to “reconstructing appearances without worrying about constructive archaeology”. In Moscow, a precise state of each monument was chosen, “which was not necessarily that of the monument at the time of its destruction but (...) the most rewarding period for the building” and in the same way, in Berlin, as denounced by Godehard Janzig, only the baroque extensions of the castle are being rebuilt in order to “highlight the reign of the prince elector Frederick of Brandenburg (...) as well as the beginning of the kingdom of Prussia” and this to the detriment of older authentic remains (Bercé, 2010, pp. 79, 88, 95). How to consider the future of these reconstructed buildings? Will it be possible to transform, reuse, restore them in another way than in an “identical” way? In The Modern Cult of Monuments, Alois Riegl emphasizes that the “Intentional commemorative value simply makes claim to immortality, to an eternal present and un unceasing state of becoming” (Riegl, 1984 [1903]). In our opinion, by freezing the reconstructed building at the stage of its second origin, political intention makes it become, forever, another object.

4. A new anthology for the 21st century

Anthologies remain valuable training tools: according to Philippe Panerai (Panerai, 2017, p. 50), the one Françoise Choay devoted in the 1960s to the theories of urban planning, L’urbanisme, utopies et réalités (Choay, 1965), has even profoundly revolutionised the teaching of architecture in France during the last fifty years. It would be very pretentious for us to claim to provide the heritage curators of the 21st Century with such an important reference work, and what we are trying to do in a collective way is indubitably much more modest. But after what we have described above as a shipwreck by metaphor, we can’t avoid thinking that we will all have to roll up our sleeves to tinker with the legacy of great thinkers of the discipline, from Viollet-le-Duc to Riegl and Brandi, but also find other links, other boards, other materials, in other words, other concepts borrowed from all kinds of disciplines if we want the new construction to hold in the storm that the contemporary world and globalised capitalism are blowing on our common home. We have just shown how reading logicians could feed our thinking about identity. In a few days, one of our students will present a master thesis devoted to the architect Charles Vandenhove, in which he addresses the rhetoric of the column from the angle of the literary theories of the French poetics expert Gérard Genette. In the same way that we are convinced that this approach allows him to better detect the subtle tones of this postmodern architecture, we also believe in the enlightening character of a cross-fertilization of theories in the conservation field. That is why we invite all readers of this paper to participate and communicate to us any new reference susceptible to renew our point of view in the field of heritage.

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Reference list


Abstract: The character of conservation has changed since the idea of preserving the physical remnants of history became important. Principles derived from this beginning and later on form the basis of what conservation ethics intend today. These principles were never rigid though - yet when it comes to conflict they should be transparent and precise in order to avoid the impression of arbitrariness. Developments continue, and the question where the power of decision should lie is more and more being discussed.

Keywords: Principles, objectivity, democratization

1. Principles

Principles are something fixed. The term can be found in numerous contexts; there are basically two types of principles, that is technical and ethical principles. Technical principles can be found in technical standards and regulations, whereas ethical principles appear in the context of societal interactions. Apart from ethical principles relating to human interaction in general like in religion there are also ethical principles relating to specific groups or professions in terms of codices of ethics. There is for example a generally accepted code of ethics within the scientific community banning plagiarism. Other examples may relate to groups like hunter associations, the fire brigade or the boy scouts. Previously also guilds or other craft associations had principles in terms of codices of ethics.

For conservation medicine may serve as an example for a code of ethics where the two types of principles - ethical and technical - are closely linked. When a so-called gold standard treatment for a certain disease is performed then scientific-technical as well as ethical principles are relevant.

The case of conservation is in many ways similar to medicine. Irrespectively whether the conservation of a small item, a single work of art, a whole collection or of a monument is in discussion, principles come into effect. They may differ slightly, depending on the cultural context, but they are – at least in the western world – usually very similar. Even the difference between traditional and contemporary art will not fundamentally change the common principles of approach.

Taking as a starting point that common principles of conservation exist we can now ask where
our principles come from, and what they are based on.

2. The idea of conservation

It is important to remember briefly the history of conservation in order to understand where we are.

As we all know, the idea of conservation has its roots in the end of the 18th century. It was further developed in the course of the 19th century, involving names like Eugène Emmanuel Viollet-le-Duc and John Ruskin, coinciding with the development of a new understanding of the discipline of historiography.

Historiography was always very much focused on the praising of the rulers, their deeds and their families, giving increased legitimization to those who were in political power. With the period of enlightenment a trend towards a more modern understanding of history set in, starting to describe important events rather from the point of view of an “objective” neutral observer instead of producing a biased or even invented narrative.

It is meanwhile common knowledge that there is no absolute truth in history, as historiography is necessarily full of interpretations. Nevertheless, in the 19th century the nature of history changed towards a more democratic understanding, much in the sense of a scientific approach, committed to objectivity and including and dealing with aspects of the whole society. When at the same time a strong trend towards nationalism set in and the European national states emerged, history in terms of legitimization of nations became even more important.

In this era of development also the understanding of art changed. With the romantic period of the 19th century the character of the artist was perceived differently, in a notion which is still very prominent in our minds and which forms the character of art as we understand it today.

The emerging and development of the new fields of archaeology and art history indeed shows this new understanding of arts and the artist as well as the increased interest in historic periods and events.

Archaeology adopted by and by a scientific approach, looking for truth when excavating antique buildings and items which would open a window into the past. Art history on the other hand was also committed to a scientific approach, when distinguishing between styles and in particular when submitting works of art to an “objective” ranking in value. The categorizing of artworks took place in analogism to the trend of the emerging scientific approach of other disciplines.

So there were two essential reasons for the evolving interest in conservation: the new importance of history and the new perception of art. As a consequence it became important to preserve the physical witnesses, which is why conservation started to become so an important topic - the quest for objective historical truth began.
3. Approaches to conservation

At this time accordingly the care for monuments under the direction of the state set in. Also Austria introduced a state office for the preservation of monuments – the “K.k. Zentralkommission für Denkmalpflege”, in 1853. It was then Alois Riegl, Conservator General of the Zentralkommission, who at the turn of the century for the first time defined conservation principles, based on the monument values which he had developed - these values are still most relevant today for conservation (Bacher, 1995).

Whereas Riegl related his values to both history and art in contrast to him in Italy Cesare Brandi, one of the most influential persons in conservation ethics, put stronger emphasis on the art aspect (Brandi, 1963; Brandi, 1977).

Already Riegl had demanded that additions to wall paintings should be clearly distinguishable, but it was Brandi and those with him who came up with and developed the tratteggio retouching technique. This system was then advanced further in a philosophical and in parts rather theoretical approach by Umberto Baldini (Baldini, 1978; Baldini, 1981) and Ornella Casazza (Casazza, 1981) in the 1970ies.

This change in approach characterizes well the development of the concept of the preservation of cultural heritage which took place in the first half of the 20th century. In the Venice Charter from 1964 these concepts are taken up and developed further (ICOMOS, 1964). Article 9 demands “Restoration […] must stop at the point where conjecture begins, and in this case moreover any extra work which is indispensable must be distinct from the architectural composition and must bear a contemporary stamp.” Article 12 explains further “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.”

These two statements show that the principles of Riegl and Brandi were more or less mirrored in the Venice Charter. Nevertheless, with architecture things are more complicated because of the frequent necessity to use a building in order to prevent it from decaying. So, we find a number of issues which go further, e. g. in Article 5: “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.”

On the international scale the principles of the Venice Charter are widely acknowledged. Thirty years later the Nara Document on Authenticity (ICOMOS, 1994) advances still further, with a broader understanding of cultural diversity and cultural heritage in relation to conservation. Globalization has started, and the Nara Document takes this into account, pointing to the fact that different cultural contexts need different approaches: “As different cultures have different belief systems […] it is imperative for them to respect each other, especially when one or more values are in conflict.” It is a fundamental document and it leaves much more open than the Venice Charter, which is also of a general nature, but much
more concrete.

There are numerous other documents, but these two seem to form the backbone for all further agreed principles in conservation.

How do these principles translate into today`s practice?

4. Conservation principles in today`s practice

Conservation of cultural heritage controlled by the state authorities has to follow principles. Justification has to be clear as for listed monuments money has to be raised and often strict decisions have to be taken. Unfortunately, it may be difficult sometimes to make the owner understand principles derived from ethics in the field of conservation, as matters of use or of economics often seem to be more important.

It is therefore necessary for any authority official who has to take decisions to be endowed with solid paragraphs or at least with a substantial technical agenda, in order not to be accused of haphazardness or even arbitrariness. Comparison with other cases of intervention on cultural heritage must be possible, as the owner might even appeal at court if he thinks that the application of these principles does not follow objective rules and are not comparable to similar cases.

The problem is that as a consequence these principles must cover all cases alike. Yet there are certainly issues which cannot be described in a merely technical language, as every decision in conservation is not only based on the safeguarding of material but includes an aesthetic interpretation. It would be much easier if cultural heritage could be standardized, but this is possible only on a very limited scale and certainly not with all objects.

Therefore in legislation technical principles normally prevail, as they are objective and applicable in all similar cases. Ethical principles cannot be described juridically other than in a global way. Their description necessarily has to be more flexible as they must be argued in each specific case, well balanced according to the agreed international documents and value systems of conservation.

In the course of the last years a development of democratization in the decision making process has set in. The process seems to have started with the Nara Document on Authenticity which takes into account the negotiation between stakeholders.

Currently democratization of cultural heritage is a strong issue coming up, being supported widely and also being taken up by the European Union in the planning process for the future agenda for the European cultural heritage. “Silo thinking” is one of the terms which should diminish the influence of specialists, giving way to an inclusion of all the stakeholders in the decision making process, eventually also of the whole community affected (Voices of Culture, 2017).

In fact, as opposed to previous thinking in the last decades, cultural heritage may be perceived differently within the same greater cultural context, as there are diverse points of view, e.g. one from the religious side and another one with a more anthropological point of
view.
Some years ago the Association of Critical Heritage Studies was created, an international network with roots in Australia, Sweden and the UK. In 2012 their Manifesto of Critical Heritage Studies was published (Association of Critical Heritage Studies, 2012). It elaborates on the conservation of cultural heritage and makes a strong point in democratization of decision making - it even speaks about “fetishizing of expert knowledge”. In the given context this may be considered appropriate as being only a provocation. It is certainly clear that we have to involve people in order to raise awareness for cultural heritage. But without expert knowledge cultural heritage would not be understood, it would not survive, so a process of carefully balancing the arguments and needs will be more and more necessary.

5. Final remark

Principles are necessary in order that decisions can be regarded as being taken following objectively applied rules. On the other hand, the more rigid principles are the less they will leave possibilities for the application of other than technical guidelines. As the various values attached to cultural heritage have to be examined in each individual case, leading in the end to an interpretation, legislation which gives explicitly open guidelines is necessary, as well as clear decision making power to heritage officials.

We have come a long way since conservation began about 200 years ago. Although we know technically much more and have infinitely better technical possibilities the essence why we do what we do and how we do it seems to me rather less clear and easy than some decades ago. We live in a more and more globalized world and by and by our heritage values are much less fixed that we thought.
Bibliography


AWARENESS OF MATERIALITY IN TIME AND CONDITION. THOUGHTS ON THE RELATION BETWEEN ART HISTORY AND CONSERVATION

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Abstract: Art historical research needs to consider the materiality of artefacts, but the character of the material and the state of preservation of any object change over time. Today’s restoration and conservation sciences provide the basis for present research in the field of history of art and architecture. Following this premises and with some examples from current research projects our contribution tries to show how much the contemporary academic Art History can benefit from the material and technical knowledge of conservators.

Keywords: Restoration, conservation ethics, art history, wall painting, sgraffito

Restoration science and art history both encompass the day-to-day interaction with objects of material culture such as artifacts, artworks, and buildings. Often the disciplines profit from one another in practice, for example in relation to issues surrounding production, dating, localization, the attribution to an artist, or the state of preservation. The two disciplines also both ascribe to international principles of ethical conservation, even if approaching them from different angles. In the two fields there is common agreement that historical objects should be protected in their entirety, that is including all original information associated with the object, and that this should be the basis of all further research. However, despite this common ground, a certain distance between the disciplines remains. Whereas restorers often do not have much use for the discussions surrounding art historical investigations and its humanities-based approach, art historians only occasionally take conservation practices into consideration, thereby viewing them as a kind of skilled craft or auxiliary discipline. As a result, the potential inherent to interdisciplinary cooperation or intensive specialized exchange often goes untapped—to everyone’s disadvantage.

Currently both fields are facing new challenges, the scope of which are almost to far-reaching to grasp. Due to fundamental shifts in the traditional cultural canon, the immaterial value of cultural heritage is no longer a matter of assumption. Capitalist economy reduces objects to
their market and added values as determined by auctions and special exhibitions. Obsolete
national narratives are being resurrected. Above all, new media are calling the significance
of authentic sources into question. It is not possible to simply carry on as before. Restoration
science and art historical research must confront the questions as to how to deal with these
challenges and how these issues will develop in the coming years. A key problem is the
issue of preserving material cultural heritage. Engaging with the problem of how to define
the ethics of conservation at this time—a process fostered and initiated by the Florentine
conference—must be carried forward and accompanied by the courage to make binding
demands. From our perspective as art historians and restorers, a more intense cooperation,
which is based on mutual acceptance, respect, and curiosity, represents an approach whose
significance is not to be underestimated. We would like to advocate for this approach with
the following examples from our own scientific practice and to demonstrate that research in
the history of art and architecture can profit from the restoration sciences, and, conversely,
that the art historical reassessment of art objects can heighten sensibilities for certain issues
of conservation.

By way of two case studies, the present contribution will demonstrate how art historical
interpretations may be modified and enriched via an exchange and interaction with
restoration practices.

In the Chiostro Verde of Santa Maria Novella in Florence is one of the largest wall
painting cycles of the 1430s, representing 36 scenes of the Genesis and painted mainly
in monochrome green.¹ There are still many unresolved questions regarding the cycle, its
attribution, dating, etc., which, however, will not be addressed here. Rather, the focus will be
the cycle’s complicated but remarkable and long conservation history, which is emblematic
of the discipline at large in its evolution and methodology (Felici/Pini/Vigna 2008; Stahlbuhk
2011; Bandini/Felici 2014).² Moreover, this example offers the opportunity to question our
current scholarly practices and our ethical principles in and how we, the scientific community
“handle” cultural goods.

Due to the poor state of conservation, any aesthetic or historical reflection about these
murals cannot advance without the direct exchange with the restorers or the relative
documentation. Possible causes for the cycle’s degradation, whether they can be tied to
intrinsic and extrinsic factors of the specific painting technique (C. Lalli and A. Felici in:
Frosinini 2019),³ or whether they can be attributed to the architectural environment and its
use over the centuries cannot be treated in detail in the present study.⁴ Nor it will be possible

¹ On the iconography of the cycle see: Stahlbuhk (2019) and McAlister (2003) with references to the older bibliography.
² For a reconstruction of the conservative operations effectuated in the Chiostro Verde see: Felici/Pini/Vigna (2008); Stahlbuhk (2011); Bandini/Felici (2014).
³ On the technical execution (and its variety) of the so-called verdeterra-paintings as well as the conservative problems
related to the same see Felici/Pina/Vigna (2008) and the contributions by C. Lalli and A. Felici in: Frosinini (2019).
⁴ For a critical summary of the sources, which refer to the state of conservation or the use made of the cloister over
the centuries, see the literature cited in note 1 and 2.
to fully consider the methodological significance of the different (evolutionary) stages and techniques regarding the detachment of murals in general. In line with the main topic of the present contribution, that is, the absolute necessity of an interdisciplinary approach in “handling” cultural goods, only those exemplary conservative actions that had a direct impact on how the paintings look today, will be mentioned in order to broach onto a wider discourse of conservation ethics.

Fortunately, archival documents offer a substantial insight into the development of conservation practices for the Chiostro Verde, mainly from the late 19th century to the present. However less documented, it appears that people were already aware of the painting’s poor state of conservation in the centuries immediately following their execution (Baldinucci, ed. 1845 [1681-1728], vol. 1, 449; Fineschi, 1790, 42-43). It is most likely that the most significant decay of the pictorial decoration in the cloister occurred in the 19th century, when it was, among other things, temporarily transformed into a stable for the horses of the Austrian cavalry (Lunardi 1983; Stahlbuhk 2011). Regarding the condition of the murals, a document from the Regional Office for the Conservation of Monuments of 1901 cites: “Nel Chiostro Verde, […] gli stupendi affreschi di verde terra, che gli dettero il nome, si distaccano dal vivo della muraglia e si polverizzano per effetto dell’umidità, in altri tempi penetrate nelle pareti.” Also, the committee of the Roman ministry, citing a detailed report by Guido Carocci of 1902, confirmed the disastrous state of the paintings as it mentions a “perdita quasi certa, […] non troppo lontana” This disastrous situation was the starting point for a long series of highly invasive interventions on the murals, the consequences thereof are manifest in the current state of conservation. In the first years of the 20th century, the restorer Domenico Fiscali (1858-1930) was the protagonist for the conservation of the Chiostro Verde. He detached six murals in the

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5 For an overview on the detachment of murals see: Paolucci (1990); Bonsanti (1993); Ciatti (2009), 208-239; Ciancabilla (2009).
6 Baldinucci (ed. 1845 [1681-1728]), vol. 1, 449: “[…] colpa del tempo, e forse anche della poca cura, gonfiato forte l’intonaco, era facil cosa che non vi si porgendo rimedio, fosse il tutto caduto a terra. Ma vaga la verità che io non avrei giammai immaginato, che fosse occorso tanto presto si fatto accidente, […]” Fineschi (1790), 42-43: “le pitture sono in molti luoghi quasi affatto smarritte”.
7 For the use of the cloister as a stable see the references cited in: Lunardi (1983); the documents of the Archivio Storico delle Gallerie Fiorentine cited in Stahlbuhk (2011), 113-117.
8 Archivio Storico del Comune di Firenze (ASCF), CF9244, Affari Straordinari, Santa Maria Novella e Santa Croce.
9 On Guido Carocci see the entry by Papaldo (1977).
10 Archivio Centrale di Stato (ACS), Roma, Direzione Generale Antichità e Belle Arti del Ministero della Pubblica Istruzione, IV versamento (dal 1908 al 1959), Div. 1, 1913-1915, busta 441.
cloister between 1903 and 1911. Among these were the Deluge and the Drunkenness of Noah depicted by Paolo Uccello. The operations undertaken by Fiscali (with his so-called sistema Fiscali) were highly appreciated by his contemporaries. That explains why, initially, the local and state authorities intended to support the detachment of the whole cycle, although economic reasons first interrupted and then definitely stopped Fiscali’s operations.

In many ways, the Chiostro Verde was a testing ground for an interdisciplinary approach already in that first decade of the 20th century. The sources bring to light, for example, discussions about the compatibility of the materials employed in the detachment and in the creation of the new support that involved engineers, restorers, and art historians. The major question, as to whether the detachment as such should be regarded as a valuable and ethically acceptable intervention, underlies the discussions in a variety of documents. Enthusiasm for technical progress, however, was the main criteria in those early attempts of salvaging the murals. In this regard, it is significant that Fiscali succeeded in detaching Uccello’s Deluge in a single piece “eliminando così i tagli che fino ad oggi si erano resi indispensabili per la smisurata grandezza di quelle superfici dipinte.”

As mentioned above, the interventions by Fiscali came to an end due to economic reasons. The availability of financial resources, to this day, is one of the main problems in the

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12 The first mural Fiscali detached in 1903 was the lunette of the second bay on the southern wall of the cloister representing the Departure from Egypt and Separation of Abraham and Lot and the Entrance of Lot in Sodom. Three years later, in 1906, he detached the lower register of the same bay with the Capture of Lot and the Benediction of Melchisedec. In 1907 Fiscali detached the polychrome 14th-century Crucified Christ with Saint Dominic and Saint Thomas Aquinas in the lunette of the last bay of the western wall. Fiscali then, still in 1907, detached the Deluge and in 1909 the Sacrifice and Drunkenness of Noah, both painted by Paolo Uccello and located in the fourth bay of the eastern wall. His last intervention in the Chiostro Verde was the detachment of the Expulsion from Paradise in the lunette of the second bay of the eastern wall.

13 On the detachment of these murals see also the contemporary article by Campani (1910).

14 ASCF, CF9040, Belle Arti, Affari Generali dell’anno 1910, fascicolo 110 Santa Maria Novella (contains floating documents of earlier years), the ministerial committee wrote on the 12th February 1904: “che l’operazione di distacco è stata compiuta con vera perfezione […] E tanto più i sottoscritti debbono esprimere la loro piena sodisfazione per i risultati ottenuti, se considerano le deplorabili condizioni di deperimento nelle quali sono ridotti tutti in generale gli affreschi che adornano le pareti di questo chiostro. Le dubbiose speranze di salvare dall’estrema rovina queste opere di tanto valore artistico possono dirsi oggi rinfrancate dall’esito addirittura completo di questo tentativo compiuto dal Sig. Fiscali […]”. Similarly in 1909 judging the detachment of the Drunkenness of Noah one can read: “compiuti dal restauratore Sig. Domenico Fiscali con ogni cura e diligenza e dell’ottima riuscita”. Illuminating is also a later journalist article which referred to the detachments by Fiscali from the beginning of the century. The journalist compared the state of the paintings before the restoration by Fiscali as ‘dead bodies, which remained in water for several days’, reporting also a greenish dust on the pavement underneath the murals. The operations by Fiscali are described as “miracolo”; cfr. La Nazione, Dal Chiostro Verde alla clinica romana, 4th June 1943.

15 See the many documents in ASCF, CF9040. For example, due to economic reasons, in 1905, the central committee (beside other members there were Corrado Ricci and Camillo Boito) proposed to limit the detachment to the murals attributed to Paolo Uccello.

16 ASC, IV vers. op.cit.
conservation, maintenance and the quality of individual restoration campaigns. The decade following Fiscali’s restoration, the 1920s, where in fact characterized by a harsh public polemic on the devastating condition of the cloister. Restoration of the murals began again only in 1929 with Amedeo Benini. Differently than in the previous campaign, the intention was to leave the paintings in their original location, thus avoiding the complicated and expensive process of detachment. The first murals Benini worked on were Paolo Uccello’s Creation scenes. The sources are full of descriptions of the disastrous state of the pictorial surface, which makes the legibility of the painting today quite surprising. Benini focused his intervention on the consolidation of the surface. The reviving substances applied by Benini to the murals most likely caused the major damage we see today, accelerating the destructive effects of the humidity and salt migration. In fact, only three years after his operations on the Creation, in 1934, the documents cite “da pochi mesi a questa parte, tutto ciò che di vivo e apparentemente brillante era tornato in luce, è oggi smorzato e in parte addirittura svanito”. What makes the case study on the Chiostro Verde particularly interesting and relevant to the topic of this publication is the possibility of juxtaposing written sources with historical photographs of the murals. Two photographs by Alinari from 1930 and 1933 (Fig. 1 and 2), for instance, are evidence for the massive abrasion the pictorial surface has suffered as a consequence of the substances used in the consolidation by Benini. The later photograph of 1933 precedes the detachment of this scene, carried out a decade later, in 1941, by Mauro Pellicioli (1887-1974) of the Istituto Centrale di Restauro, under the direction of Cesare Brandi.

17 The polemic was raised through an article by Ardengo Soffici with the title Affreschi di Paolo Uccello minacciati da rovina in La Nazione on 3rd January 1929, which was followed by several other contrasting articles on the same journal.
19 Benini’s description of the condition evokes a devastating state of conservation (ASCF, CF9118, 1930): “[...] si trovava in condizioni cattivissime. Tanto da dettare grande pensiero e precauzione per il restauro da eseguirsi che sembrava inutile qualunque tentativo, [...]”.
20 See the annotations by Benini in ASCF, CF 9118: “Passato poi una soluzione per ridare a tutto l’affresco una parte di quella vivacità che col tempo era quasi totalmente distrutta” and “ravvivando quanto più si è potuto”.
21 ASCF, CF9135, 1934.
22 This collaboration between the Florentines with the newly established Roman Istituto Centrale di Restauro is of high interest. Cesare Brandi effectuated a site inspection in 1941. He affirmed that the restoration should be granted by the ICR, even if the bad state of conservation would not permit a satisfactory result (Archivio Storico dell’Istituto Centrale di Restauro (ASICR), f. AS0129: “sebbene non rappresenti, dato lo stato fatiscente, opera di particolare soddisfazione per l’Istituto di Restauro; dovrebbe essere condotto da questo, perché le difficoltà sono tali che non possono essere superate dalla comune prassi dei restauratori privati.” Mauro Pellicioli (on him see Panzeri (1996); Rinaldi (2014)) detached five murals: the two Creation scenes, the Assassin of Cain, as well as the lunette and the lower register of the following bay illustrating the Construction of the Ark and the Entrance into the Ark.
The remaining murals were detached in the 1950s by Leonetto Tintori (1908-2000) and were then relocated in situ. This last decision is described in the sources as an “experiment” since the authorities were well aware of the continuous increase of air pollution and the insalubrious mural structures of the Chiostro Verde. What the scientific community and the local conservation officials could not anticipate was the devastation caused by the flood in

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24 Beside other Ugo Procacci expressed his contrary opinion “assolutamente da sconsigliare”, 14th July 1960; ASCF, CF9236.
1966. The water, and all the substances dissolved in it, reached nearly half of the lower register. All detached murals were transported to the laboratories of the newly founded Opificio delle Pietre Dure, where a long conservation process was undertaken. The return of the paintings into their original collocation in the early 1980s was accompanied by a vivid debate about the appropriateness of such a decision (Bonsanti, 1992, 222-223).

Fig. 3 Scheme of the first three bays of the southern wall in the Chiostro Verde, Santa Maria Novella.

The visual clarity of the single murals and of the cycle as a whole is today hardly compromised. The general condemnation of the euphoric age of stacchi and strappi is mostly justified, and in the case of the Chiostro Verde, where Tintori detached also all the sinopie of the cycle, there is an actual problem in conservation and access to the works, as the sinopie are stored in an inaccessible deposit in questionable conditions. However, returning to the importance of interdisciplinarity and the exchange of knowledge between the disciplines of art history and conservation, I want to conclude with the following reflection: Fig. 3 shows, at center, the first scenes detached by Fiscali (respectively the lunette in 1903 and the lower register in 1906). A general look at the southern wall, including the immediate adjacent bays – with murals detached more or less 50 years, and several interventions later – those detached by Fiscali still preserve, albeit their poor state of conservation, a much more greenish, and therefore (art) historically speaking more “original” appearance than their immediate neighbors. This being said, I do not intend to promote a pro-stacco turn, but to recall the necessity of context even in judging former practices of intervention and the necessary effort to understand the reasons for the conditions in which an artwork can be found at present.

For some notions on the Chiostro Verde see Shearman (1967); Ragghianti (1966); Procacci (1970), 121.
Today, the scientific community, like in the early 80s, is again confronted with the question of relocation and therefore accessibility, usability, philology and conservation. Following the recent restoration campaign on the murals of the first four bays of the eastern wall (including the scenes attributed to Paolo Uccello) (Frosinini, 2019), the detached paintings have been located on huge panels in the ancient refectory of Santa Maria Novella, which is adjacent to the Chiostro Verde (Fig. 4). The hanging or musealization of these scenes surely enhances the durability and maintenance of the works, which would be hardly compromised in their original location due to continuous infiltration and air pollution. However, the installation of these eight murals evokes a chapel or oratory rather than the wall of a cloister. Moreover, it ignores the original height of the paintings from the ground (both curatorial decisions forced by the architectural space of the refectory), which misleads the beholder and disregards a historically acceptable ‘reconstruction’. The current state of the Genesis-cycle, though, touches crucial ethical aspects of conservation practices: should we guarantee the conservation for future generations, at least of the masterpieces of the cycle? Is it then tolerable to not allow the visitor to experience them in their original location by breaking up the continuity of the cycle? And if so, can we accept that those parts, which are not by the hand of a major artists, deteriorate due to the general increase of air pollution? – These are difficult questions which require serious, carefully studied answers by an interdisciplinary pool of scholars who believe that it is absolutely necessary to discuss these problems in interdisciplinary settings the absolute necessity to discuss. Only by debating the advantages and disadvantages might knowledge be generated and contribute to the field of ethics in conservation.
As we have seen, art historical research benefits from competencies in the field of conservation—and can assist in recognizing and communicating the value of monuments. In recent years the scientific interest for *sgraffito* decorations has increased and has paid special attention to issues of materiality and generally addressed questions of technology.\(^\text{26}\) As part of our contribution, I would like to offer some Florentine examples that shed light on the importance of the restoration sciences relative to many questions impacting research in the field art and architectural history.\(^\text{27}\)

The residence of the Arte della Seta (Fig. 5),\(^\text{28}\) the powerful Florentine guild of silk traders and weavers, is located on one of the narrow alleys behind the Palazzo della Parte Guelfa, not far from the Loggia del Mercato Nuovo and Pietro Tacca’s famous bronze boar, *Il Porcellino*.

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\(^{26}\) E. g. the recent conference “Sgraffito in Change” in November 2017 in Hildesheim/Germany. The proceedings will be published this year.

\(^{27}\) This text is based on the research for my PhD thesis “Florentiner Sgraffito-Dekorationen des 14. und 15. Jahrhunderts. Erfindung, Technologie, Bedeutung” (Berlin 2016), which will be published next year as part of the series “Italienische Forschungen des Kunsthistorischen Instituts in Florenz – Max-Planck-Institut”. I am very grateful to my PhD supervisors Wolf-Dietrich Löhr and Gerhard Wolf, who have supported my work with their constructive criticism and encouragement. An overview of the history of the Italian sgraffito decorations with focus on Florence provide Thiem/Thiem (1964) and currently Huth (2019).

\(^{28}\) Residenza dell'Arte della Seta, Via di Capaccio, 3, Florence was built around 1385 for the Arte di Por Santa Maria. Benzi/Bertuzzi (2006), 61–7.
Around 1460 the building was adorned with a *sgraffito* facade showing a depiction of ashlar work, a frieze with putti, garlands, and the guild’s symbol (Huth, 2016, vol. 1, cat. no. 24; Thiem/Thiem, 1964, cat. no. 25, 70-1). However, in 1921 the building was reconstructed and the facade was redesigned – with significant changes, as evinced by comparison. Not only the remains of the Quattrocento decoration have been lost, but so have the original motifs and structure of the facade’s design as well as all information regarding its material and technical execution. Today, the facade shows a strange brownish coloring, and the lighter ornaments have a drab or yellowish tone. A similar situation is evident on the Palazzo Corsi in Borgo Santa Croce, which was recently renovated. The *sgraffito* facade largely dates back to 1938. Only small portions of the original decoration were preserved as references. Before the most recent renovation, it was possible to distinguish between original and renovated elements, but now the entire surface has a uniform appearance, as the result of a highly questionable conservation approach (Fig. 6). Whenever the existing standards of conservation ethics are ignored, this needlessly complicates any examination. The treatment of this facade is truly regrettable, especially given that there are two exemplary restored *sgraffito* facades in Florence, namely those of the Palazzo Dietisalvi Neroni and the Casa Lapi. In the case of Palazzo Corsi, one hopes that a meticulous preliminary examination and a complete documentation of all interventions exist. Precise and publicly available documentations of restoration measures form the basis of later research. Therefore, such documentation is an important joint source for restoration practice and art historical study.

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29 Palazzo Corsi, Borgo S. Croce, 19, Florence was built around 1420. The original *sgraffito* decoration can be dated to the same time. Huth 2016, Diss, vol. 2, cat. no. 14; Repertorio (14 August 2018) (as Palazzo Gherardi); Thiem/Thiem (1964), cat. no. 10, 58 (as Palazzo Morelli).

30 The renovation took place in 2017. The building is currently used as a school.


32 Casa or Palazzo Lapi, Via Michelangelo Buonarroti, 13, Florence was built around 1455. The sgraffito decoration was executed at the same time. The artist is unknown. Huth 2016, vol. 2, cat. no. 23; Repertorio (14 August 2018) (as Palazzo Lapi); Thiem/Thiem (1964), cat. 15, 64. On the restoration: Gualandi (2007), 201. Palazzo Dietisalvi Neroni, Via de’ Ginori, 9, Florence was built/reconstructed around 1444–7. The *sgraffito* facade is contemporary; Huth (2016), Diss., vol. 2, cat. no. 19; Repertorio (14 August 2018) (as Palazzo Gerini); Thiem/Thiem 1964, cat. 12, 59–60 (as Palazzo Gerini). On the restoration of the Palazzo Dietisalvi Neroni: Bandini et al. (2001), 60–89.
As with the Arte della Seta residence, the facade of the Palazzo Corsi shows an obtrusive brownish coloring. One can exclude the possibility that this corresponds to the original Quattrocento coloring, because no plaster or whitewash of the fourteenth or fifteenth century contains such pigments. Furthermore, the current surface has a scratched decoration, but painted. Color and technique are essential in producing the aesthetic effects of a building front – or any other pictorial object. Therefore, in terms of art historical research, questions of color and technique are not secondary matters; they are of equal importance as any other topic of discussion, such as problems of dating, the transfer of motifs and ornaments, the attribution to a specific artist or artisan, or the overarching cultural context.

To learn more about early sgraffito techniques, it is helpful to explore decorations without such later interventions. Although few such examples exist, among them are the remnants of the former courtyard of Villa La Pietra near Florence,33 executed around 1470, more or less the same time as the original facade of the Arte della Seta residence. Coated with a layer of plaster in the sixteenth century, the surface was exposed to the elements for the relatively short period of one hundred years. The microscopic examinations of samples taken from the facade have shown that the plaster contains a black pigment made of burned plants (Huth, 2014, 12–13). A similar conclusion was drawn from an examination of the plaster of Casa Lapi, carried out by the restorer Daniela Valentini in 2005. Astonishing is the modest contrast between the colored plaster and the whitewash, which cannot be considered a consequence of the leaching process. Other sgraffito facades that have not undergone later interventions

33 The Villa La Pietra, today part of New York University, was built as a villa suburbana for Francesco Sassetti in the 1460s; Lillie (2005), 180ff. On the sgrafitto decoration executed around 1470: 202–4, 228; Huth (2016), 84–6.
also lack intense contrast, which has commonly been considered as key feature of this kind of wall decoration. This is amazing, given that the art historical perception of *sgraffito* is based on a bold bichrome contrast and also that the purpose of restoration is often defined as the renewal or reconstruction of this contrast, as demonstrated in examples mentioned above. However, an analysis of the material and execution of these unrenovated examples argues for a new perspective. The technique was not developed as cheap substitute for bichromatic marble incrustations, but as a simple regulation of joints. The earliest known *sgraffito* decoration in Florence can be found in the so-called Chiostro antico in the complex of the Florentine monastery of S. Croce. Dating circa 1325 and located in the little-known narrow cloister behind the Cappella Pazzi in S. Croce, it covers the brickwork of the ground floor arcades below the Corridoio del Noviziato (Fig. 7).³⁴

![Fig. 7 Chiostro antico, S. Croce, Florence, sgraffito decoration, ca. 1325](image)

³⁴ The eastern and southern arcades of the so-called Chiostro antico (also referred as Chiostro del Noviziato) were part of a cloister situated between the southern transept of S. Croce, the sacristy building, and the first dormitory (destroyed by fire in 1423); Carbonai et al. (2004), 248. The arcades must have been erected around 1325, at the same time or shortly after the completion of the low vaulted ground floor of the sacristy building; Cabassi/Tani (1981), 8 (misdating the sacristy to around 1340). The large, Peruzzi-financed sacristy was completed before 1328, because it was documented as the location for the safekeeping of the election pouches (Giovanni Villani, Nuova Cronica, Lib. 11, Cap. 109; cfr. Moisé (1845), 319; and Davidsohn (1912), 863), introduced during the political reforms of 1328 (cfr. Trexler (1978), 323–4). The sacristy was also mentioned in a testament before 1330 (ASF, Diplomatico, Normali, 5 Gennaio 1329, Firenze, Innocenti; Vojnovic (2007), 297). The dating of the arcades dating before 1328 is confirmed by the start of the building of the Cappella Baroncelli in 1328/29 that took the pre-existing connection between transept, sacristy, and dormitory into account, as can be observed on the ground floor at the powerful L-shaped pillar below the southeastern corner of the chapel (for a different opinion: Saalman (1966), 242, n. 7) and its consideration of the Andito’s width. The Andito (or Corridoio) del Noviziato (or della Sagrestia) was probably built in the 1440s; Cabassi/Tani (1982), 284–6. The division of its facade into three large windows does not take into account the rhythm of the pre-existing arcades on the ground floor.
As demonstrated by this example, from the invention of the sgraffito in early Trecento until mid fifteenth century the plaster was always uncolored. The use of black pigments was probably introduced for the decoration in the courtyard of the Palazzo Medici (Huth, 2016, vol. 1, 64). The new, elegant grey – or “silver” as Vasari later writes – was intended to harmonize with the walls and the architectonic elements made of grey macigno. The current coloring of the restored courtyard is not reliable proof. However, many sgraffito decorations in Florence were executed shortly after those of the Palazzo Medici, and they adapted the motifs and coloring of the decorations in the Medici courtyard. One example is the decoration in Villa La Pietra.

Thanks to an awareness for materiality and technique, this understanding of early sgraffito in Florence opens up possible explorations of hitherto neglected questions—for example in regard to the status and the effects of sgraffito decorations in their urban context, their connections to other artistic fields, or their dissemination throughout Italy and Europe. As this brief excursion into a specific issue makes clear, art history can broaden its horizons through restoration sciences. Of course, this approach is not utterly new, but at least since the so-called “material turn”, art history has become highly interested in the significance and the impact of materials, artistic techniques, the processes of execution and – of course – deterioration and alterations. Also, current research on material culture and the “history of things”, not only including artifacts but all cultural objects, could not exist without the contributions of the restoration sciences. As a result, it is necessary to increase interdisciplinary cooperation in the interest of both heritage and research.

36 The courtyard was restored several times (1902, 1953, and 1992). The current color of the Palazzo Medici sgraffito decoration looks very dark in comparison to other original Florentine sgraffito surfaces.
37 These include: Palazzo Rucellai (courtyard), sgraffito decoration dating ca. 1455 (largely lost); Palazzo Lapi (facade), sgraffito decoration dating ca. 1455; Residenza dell’Arte della Seta (facade), sgraffito decoration dating ca. 1455–65 (lost); Palazzo Gianfigliazzi (facade), sgraffito decoration dating 1460–61 (lost); Palazzo T名单 (court), sgraffito decoration dating from the 1460s (largely lost); Palazzo Lenzi (facade), sgraffito decoration dating from the early 1460s (lost); Palazzo Nasi (facade), sgraffito decoration dating from the mid 1460s (restored); Palazzo Vecchietti (courtyard), sgraffito decoration dating from the 1460s (restored); Palazzo della Signoria (court), sgraffito decoration dating 1460–66 (largely lost); Palazzo Benizzi (facade), sgraffito decoration dating 1460–80; Palazzo Niccolò di Giovanni Capponi (facade and courtyard), sgraffito decoration dating 1470–75. See Huth (2016), Diss, vol. 2, cat. no. 22–6, 30–4.
Bibliography


III. Meaning and practical relevance of ethics in conservation-restoration of heritage today

Reflections on Conservation-Restoration Practice Today - A European Perspective
Stefan Belishki & Susan Corr

Ethics and Main Principles in the Conservation of Stone
Jadwiga Łukaszewicz

Dealing with Authenticity in the Conservation-Restoration of Wall Paintings and Architectural Surfaces
Ursula Schädler-Saub

“Before we understand what we are doing, we need to know how we think”
Dörthe Jakobs

Towards the re-reading of the 20th Century principles of architectural conservation-restoration
Andreas Putz

Conservation versus reconstruction. Do we need other or new criteria conserving architectural surfaces of the 20th Century?
Thomas Danzl

The ethical problems of reconstruction
Ádám Arnóth

The conservation of architectural statuary in accordance with the ethical requirements for sculpture and architecture
Camille De Clercq & Judy De Roy
Abstract: Contemporary conservation-restoration practice is affected by theoretical and ethical principles and by social factors. They are often discussed separately, but their effect on the processes of conservation-restoration is complex and intertwined. This paper offers an overview of the development of professional codes of ethics in conservation-restoration and as they relate to and inform professional competences. It looks at how ethics and competences are defined and link with professional education. It also discusses relationships with other professions in the preservation of cultural heritage and the need for clarification on the role and obligation of these respective professions. The legal and social issues they generate at a European level are touched upon.

Keywords: Conservation-restoration, professional codes of ethics, professional competence, professional education, legal issues

1. Introduction

Theory

The twentieth century was a period of significant development of theoretical principles of conservation-restoration.

Some of the core concepts formulated in theoretical texts still play an important role in professional conduct today: the concepts of authenticity, integrity, minimum intervention, reversibility, author’s intent etc., are often quoted by conservator-restorers as informing their professional practice. While the development of theoretical concepts can be easily traced back to Alois Riegl and Camillo Boito, further elaboration of these concepts was carried out in the work of Cesare Brandi, Umberto Baldini, Paul Philippot, to mention a few of the most famous names.

More recent authors, like Salvador Muñoz Viñas (2005, 2009, 2015) have published theoretical...
texts which challenge traditional concepts and reinterpret them to reflect new insights on the subject of conservation-restoration.

Our understanding of what constitutes cultural heritage has evolved significantly in the late twentieth century and now encompasses a broader landscape and a reappraisal of the theory of conservation-restoration is certainly due. However, this does not displace an approach to the conservation and restoration of traditional (material heritage) art objects which emphasises aesthetic value, authenticity, historical significance, etc. These remain potent concepts and important to professional conduct today. But, seminal theoretical texts concerned with aesthetics and philosophy hardly provide explicit and specific guidance on professional conduct. The need for such guidance has lead the professional community to develop a more comprehensive set of precepts and principles making it possible to standardise professional practice in order to guarantee and deliver a high quality conservation-restoration service. This process began in the 1960’s and these principles are elaborated in documents which are considered as either
- doctrinal texts developed by international organisations, and:
- guidelines/codes of ethics (either by international or national organisations).

Both aim to provide guidance for quality in professional practice and by extension, to help regulate the work of conservator-restorers.

2. Doctrinal texts

The development of doctrinal texts is related to the establishment, after World War 2, of international professional organisations involved in the conservation and protection of cultural heritage. ICOMOS has lead this process to date having issued more than twenty doctrinal texts. Most ICOMOS documents however, do not focus explicitly on the conservation-restoration profession, but rather on different aspects in the wide process of conservation and protection of cultural heritage (Jokilehto, 2009). These texts, called Charters, Principles or Documents, are dedicated predominately to architectural and archaeological sites rather than with art objects or collections.

There is an exception in the document ‘Principles for the Preservation and Conservation-Restoration of Wall Paintings’ (ICOMOS, 2003). This document specifically considers professional practice on the conservation-restoration of wall paintings. In so doing, wall paintings are explicitly described as being part of the built fabric - ‘monuments and sites’, and integral to them. But the reverse is sometimes the case; the value attributed to a building

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1 Amongst the most influential and largest organisations are International Council of Museums (ICOM) <icom.museum> established in 1946 as a successor of the Museums Committee of the League of Nations, International Institute for Conservation of Historic and Artistic Works IIC, established in 1950, International Council on Monuments and Sites (ICOMOS) established in 1965. At European level the establishment of the European Confederation of Conservator-Restorers’ Organisations (E.C.C.O.) in 1991 should be noted.

2 The full list is available at ICOMOS website: https://www.icomos.org/en/charters-and-texts.
may derive from the wall paintings where the conservation-restoration of wall paintings has its own conservation issues and specificities. It must also be acknowledged that the principles contained in the Venice Charter\(^3\) (ICOMOS, 1964) are such that they are also referenced by conservation-restoration specialists working within the museum environment (Ashley-Smith, 2017). This extended sphere of influence beyond the built environment can be accounted for by the fact that much of the theoretical approach in the Venice Charter is based on Cesare Brandi's Theory of Restoration (1963).\(^4\)

The majority of doctrinal texts are for the most part, more concerned with concepts of conservation and protection than in offering guidance for conservation-restoration practice.

### 3. Professional Guidelines and Codes of Ethics

The idea of a standard high level of professional practice, based on agreed principles, lead to the development of professional guidelines, some of which are supported by professional codes of ethics, commentaries and other documents described below. These guidelines are created to promote self-regulation by the conservation professionals based on the presumption that conservator-restorers themselves know best their practice and their profession. The earliest guidelines addressed conservation-restoration practice at national level. The origin of these documents can be traced back to the Murray-Pease Report (1964) presented to the American Group of the International Institute for Conservation of Historic and Artistic Works (IIC). The aim of the document was to “set out the basic procedural requirements for the proper conduct of professional conservation in the U.S.A.”. It wasn’t adopted by the entire organisation (IIC) and was intended to serve at national level only. The Report didn’t aim to define “moral obligations” – the IIC/AG code of ethics was adopted later (Keck, 1967). These documents, after being redrafted, formed the basis of the Code of Ethics and Standards of Practice, adopted in 1979 by the (already) independent American Institute for Conservation of Historic and Artistic Works (AIC).

The documents were amended, and the last version was adopted in 1994 when the Standards for Practice were replaced by Guidelines for Practice. The Commentaries are integral to the new set of documents. They were completed in 2001 and revised in 2008. The updated version of the documents “was designed to amplify and define current accepted practice for each of the Guidelines while accommodating the individual needs of each area of professional specialisation” (AIC, n.d.). These professional guidelines, despite being widely and internationally acclaimed, remain focused at national level.

Similar professional guidelines and codes of ethics were adopted by other national organisations such as the Australian Institute for Conservation of Cultural Material (AICCM, 2008), Canadian Association for Conservation of Cultural Property and Canadian Association

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\(^4\) Today better known to the public is the edition of 1977 (Brandi, 1977).
of Professional Conservators (CAC/CAPC 2000), United Kingdom Institute of Conservation (UKIC)\textsuperscript{5} and later by the Institute of Conservation (ICON, 2014a, 2014b).

At a European level the first (and so far the only) internationally agreed, supported and recognised guidelines for practice were created by the European Confederation of Conservator-Restorers’ Organisations (E.C.C.O.). The three-part document, entitled E.C.C.O. - Professional Guidelines, was first adopted in 1997 and later revised: I – The Profession (E.C.C.O., 2002), II – Code of Ethics (2003), and III – Education (2004). The Guidelines address professional conduct, ethical and educational issues referring to the needs and traditions in professional development and note the specificity of the cultural heritage in the European continent.

E.C.C.O. promotes high standards of professional practice based on a set of agreed principles defined in their Professional Guidelines (E.C.C.O. 2003). In adhering to these Guidelines which must be adopted and implemented by member organisations, E.C.C.O. is developing a coherent demographic of professional conservator-restorers across Europe. Key to this work is the discourse around cultural heritage; how it is valued, used and accessed which subsequently prompts the question of how it is taken care of, by whom and for whom. These are the issues which contextualise the practice of conservation-restoration and are considered in the first, second and third articles of E.C.C.O.’s Code of Ethics. While the Guidelines must be transposed into the statutes and by-laws of member organisations, becoming in fact the ‘soft law’ of the profession to borrow a legal phrase, they do not transcend national regulations for the profession where these apply.

European policy, based on the principle of subsidiarity in cultural matters, recognises that each country has its own regulations, dependent on legal traditions and the character of the cultural heritage and its values. However, even without legal enforcement of the rules of conduct, the Guidelines remain an important tool for guaranteeing high quality in conservation-restoration work and in achieving mutual recognition of the profession across Europe.

Although the E.C.C.O. Guidelines may be considered a European document, its influence and acceptance goes beyond the geographical borders of Europe. Organisations from other countries in formally consulting with E.C.C.O. have expressed conformity in their professional conduct with the Guidelines, demonstrating that the principles they espouse resonate on a global scale.\textsuperscript{6}

The Guidelines are not frozen in time; they can and have been revised and updated in response to the development of the profession. However, significant developments in thinking and approach to cultural heritage, reflected in the Council of Europe’s Framework Convention on the Value of Cultural Heritage to Society – Faro Convention (Council of

\textsuperscript{5} Now part of the Institute of Conservation (ICON) <https://icon.org.uk/>.

\textsuperscript{6} Organisations from Turkey and Israel demonstrated their adherence to E.C.C.O. Guidelines in their correspondence with E.C.C.O. National Research Institute for Cultural Heritage NRICH, Korea was especially interested in E.C.C.O. Guidelines as a model for their national code of ethics too.
Europe, 2006), require further interrogation of the Codes of Ethics. The democratisation of culture and heritage, viewed as a group of resources whose value is a function of community and social engagement with the world, by corollary envisages broader participation in and responsibility for the care of that heritage. Conservation has always had to negotiate value but that such discourses are now to be refracted through the prism of social value implies that the perspectives of ‘for whom’ and ‘by whom’ have to be unpacked and problematised. The conservator-restorer draws on an evolving intellectual canon of knowledge and research, and although facilitating, where appropriate, societal participation, conservation remains a professional discipline rooted in both the sciences and the humanities. Conservation has been described as the ‘management of change’ (Staniforth, 2000). Increasingly, this implies a dialogue between evolving social expectations of how heritage is made, accessed and used, and a mandate to consider its transmission to future generations. In having the potential to increase or add value through the creation of new knowledge, the conservator-restorer is bound to both advocate for and act on the heritage in the public interest. Whereas by definition conservation-restoration is a public good, it often operates in contexts of competing public interests. Balancing between advocating on behalf of the heritage and acting on behalf of the client, the conservator-restorer is ultimately guided by the level of change/intervention they are comfortable to carry out or are prepared to justify. This represents the juncture where professional guidelines/codes of ethics and theories on conservation-restoration meet. It is worth pointing out that the profession of the conservator-restorer is considered a ‘liberal profession’ in Europe. This means that the expert knowledge the conservator has places them in a position of trust and they are morally bound to use this expert knowledge for the benefit of the object in the service of the client.

The effectiveness and success of current codes of ethics as they inform practice have their critics. Some argue for ‘adaptive’ ethics (Muñoz Viñas, 2005, p. 202) or ‘bespoke codes of ethics’ (Ashley-Smith 2017). Muñoz Viñas wants to acknowledge the subjective values that inform decision making and which are necessarily case specific. Ashley-Smith appears to suggest that the conservator-restorer identifies, within a spectrum of possible treatments, levels of interventions that they are prepared to implement contextualised within a range of parameters. Both approaches may amount to a readjustment of the lens through which conservator-restorers engage with ethics in their day to day practice but by its very nature, the conservation-restoration process, as described in the professional competences, requires an evaluative approach where decisions are made on a case by case basis. How far interventions can be carried within ‘professional’ practice so that concepts such as ‘truthfulness’, ‘reversibility’ and ‘authenticity’ remain cogent and applicable or even useful as a yardstick for best practice continue to form a critical part of the dialogue around professionalism. However, they are only meaningful when located within the broader understanding around cultural heritage values and the cultural agency of heritage.

No code of ethics is capable of policing every single case or eventuality but as principles governing contemporary heritage practice have broadened to embrace a wider constituency of actors and stakeholders, the decisions of the conservator-restorer have in turn become
more complex and iterative. By extension, it is this new dispensation which challenges to the very core the classification of heritage assets as movable and immovable (if such a typology was ever justified or helpful) given the three constituencies of the public, the heritage and the profession. What has become patently clear as the profession has evolved, is that all conservator-restorers, irrespective of specialisation, operate and are bound by the same framework of a general code of ethics.

4. Education

Although increasingly the approach of the conservator-restorer is a negotiated position, the expert knowledge they bring is based on a discrete education and training which is addressed in the third part of the E.C.C.O. Guidelines.

_E.C.C.O- Professional Guidelines (III) Education_ determine the requirements and the level to which a conservation-restoration education should be delivered, stating that “The minimum level for entry into the profession as a qualified conservator-restorer should be at Master's level (or recognised equivalent)”. These are an agreed set of requirements iterated in other doctrinal texts the earliest of which is published by International Council of Museums - Committee for Conservation (ICOM-CC) “The Conservator-Restorer: a Definition of the Profession” (1984). The European Network of Conservation-Restoration Education - ENCoRE⁷ (2001) also outlines the requirements for education and training in conservation-restoration which were further clarified in a joint document published together with E.C.C.O. (ENCoRE & E.C.C.O., 2003).

All the above documents point to the importance for conservator-restorers to obtain complex knowledge combined with high level of skills. This fact, together with the understanding that conservation-restoration is a discrete professional occupation, different to that of the artists and craftsmen with which it is often mistakenly considered synonymous, has lead in the last few decades to the development of numerous academic/university programmes.⁸ Certainly a University education is now the most common way of starting a career in conservation-restoration around Europe. The expectation on graduates in the last decades of the 20th century to have an extended knowledge in diverse scientific and humanitarian disciplines allied to substantial skills in the chosen field of specialisation has seriously challenged educational institutions in developing and delivering curriculum. Confronted with the dilemma of how to make a good academic “product”, educators have reacted by constantly expanding the curriculum (Cather, 2000), which doesn’t always deliver the expected professionalism (outcome). The situation is further complicated by the fact that higher education courses have traditionally varied significantly in both content and structure (Hutchings & Corr, 2012, p. 441). A significant move to address these differences led to the

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⁸ The first diplomas in conservation-restoration were awarded before World War 2. The real expansion of the academic education in the profession began after the 1960s and continues in 21st century.
Bologna Declaration by the European Ministers of Education (European Ministers in charge of Higher Education, 1999). The European Credit Transfer system (ECTS) was introduced as part of a coordinated scheme to restructure educational delivery across Europe and to aid in the mutual recognition of qualifications. The system is related to the European Qualifications Framework (EQF) for lifelong learning (EU, 2008) which is a mechanism developed to find equivalence in qualifications. Qualifications are described in terms of learning outcomes and are calibrated to eight different levels across the EQF as these levels reflect a hierarchy of learning in knowledge, skill and competence.

In visualizing this Jeremy Hutchings (2011) states that the “Recognition of the value of explicitly stating learning outcomes has shifted the academic emphasis of education from what the educator wishes to teach to what the graduate needs to know”.

Although the issue of equivalence in qualification has been addressed, curricula in conservation-restoration programmes continue to differ, some are dominated by practice while others are almost entirely theoretical in content. Insufficient training and development in the skillsets of graduates from academic programmes has been identified as a matter of considerable concern. Jonathan Ashley-Smith (2016) for example, highlights the “risk of a decline of practical conservation skills” in the UK. This issue is examined by ENCoRE (2014) in a paper ‘On Practice in Conservation-Restoration Education’. Recognising the imbalance in curricula which leaves graduate students without fully developed practical skills the paper defines what is meant by practice within an academic programme in order that the recommended 50/50 balance between theory and practice can be achieved. The importance of an appropriate balance in theoretical knowledge and practical skills in the education of the conservator-restorer is stressed in both ICOM-CC (1984), and E.C.C.O. documents.

The level to which theoretical knowledge and practical skills need to be acquired in terms of the learning outcome of a course of study has been interrogated through the mechanism of the European Qualifications Framework (EQF) by E.C.C.O. and are expressed and have been published as the competences required of the Conservator-Restorer for access to professional practice (E.C.C.O., 2011).

5. Competences

The formal adoption of the European Qualifications Framework for lifelong learning (EQF) in 2008 was expected to “enable international sectoral organisations to relate their qualifications systems to a common European reference point and thus show the relationship between international sectoral qualifications and national qualifications systems” (The European Parliament and the Council of the European Union 2008). Pan-European professional bodies, such as E.C.C.O., are encouraged become involved in this process through the specification of entry requirements for the professions that they represent.

Following a meeting with the EU Commissioner in December 2006, E.C.C.O. began work on the EQF and by unanimous consent of the GA in 2007, level 7 EQF was formally declared equivalent to the Masters’ degree. Work to describe the levels of knowledge and
skill required for access to professional practice at this level was undertaken by E.C.C.O. and subsequently published in *E.C.C.O. Competences for Access to the Conservation-Restoration Profession* (E.C.C.O., 2011).

E.C.C.O. used concept mapping, developed by Novak in 1972, to illustrate the topography of knowledge and skills which together with experience describe competence (Hutchings & Corr, 2012).

The conservation-restoration process is mapped as a narrative of decision-making colour coded to five levels of skill. Knowledge is calibrated to a schema of knowledge based on the work of Anderson and Krathwohl (2001). The map is interpreted using these scales to illustrate the levels of knowledge and skill that describe the learning outcomes for qualifications at Bachelors, Masters and Doctorate respectively. For E.C.C.O., the EQF has acted as a nexus point between the goals of an education programme and the requirements of the profession.

The Competences illustrate the centrality of the conservator-restorer and by extension conservation-restoration to decision-making in and management of cultural heritage. At EU level, policy for an integrated approach to the care and management of cultural heritage is being developed recognising that multiple actors, from specialists to the general public have a role in the derivation of public good from the cultural heritage resource. Cultural heritage literacy, as a legitimate and important public good concerning knowledge of the nature, resilience and value of cultural heritage, is axiomatic to the goals of discernment, shared stewardship and sustainable, informed utilisation of the resource.

Whereas multiple actors do have a role in the care, valorisation and utilisation of the cultural heritage, specialist training and the critical thinking that goes with it underpins its sustainable utilisation as a resource. Existing practitioners, particularly conservator-restorers, have identified and advocated for transversal linkages not only between the specialist and the public, but also between specialist disciplines in order to maximise, in a sustainable way, the potential of cultural heritage as a public good.

Specific activities in the transdisciplinary process of heritage conservation and preservation/protection can be identified in all the discrete specialisations practicing conservation-restoration, not least amongst those in the field of decorative architectural surfaces and wall paintings. A comprehensive illustration of this transdisciplinary integration of activities in the field of built heritage conservation for example, is given by Mechthild Noll Minor (2016). Noll Minor discusses the complex confluence of legislation, standards and guidelines found in “best practice” cases and cites the conservation of the Neues Museum in Berlin as one such case. This project, undertaken in 2003-2009, demonstrates the importance of a framework for professional involvement. Noll Minor highlights the role of the conservator-restorers in this interdisciplinary project; the quality of the conservation-restoration interventions contributed to very good long term outcomes guaranteeing the sustainable use of the building and of great benefit to the public. The author concludes that in order to achieve quality assurance it is critical to develop an “interdisciplinary project leading team, including, or sometimes even lead by conservator-restorers”. This presentation underwrites the impact of the
Competences in helping to deliver quality assurance in the practice of heritage conservation and protection, where communication between the specialists and understanding of each other's roles is critically important.

A transdisciplinary approach, sometimes referred to as 'cross-disciplinary', has been subject of debate amongst museums’ conservator-restorers too (Williams, 2017). The contemporary idea of cultural heritage brings entirely new challenges there.

The Competences publication impacts on a wide range of interested parties, including Universities, professional organisations, political institutions, individuals etc. The advantage of the approach of the authors of the book, is that regardless of the field of specialization, conservator-restorers can identify the level and scope of competence.

6. Legal aspects

From a European perspective the publication on the professional competence of conservator-restorers has been helpful as a political tool. The competences serve to identify the discrete nature of the profession, the unique role and responsibilities of the professional conservator-restorer enabling it to be distinguished amongst the other professions in the cultural heritage sector.

Legal regulation to provide a statutory framework for professional practice has been sought at European level to ensure best practice in the care of our common European heritage. However, every state has its own specific legal framework based on cultural traditions, values and national interests although it is interesting to note, that the core ideas and principles of E.C.C.O. Guidelines have come to be reflected in some of the national legislations on protection of the cultural heritage and on conservation-restoration. As Corr (2017) pointed out: “At EU level cultural heritage and provisions for its protection are regarded as a matter of national sovereignty. In truth the political landscape of European Union has meant that professional regulation can be seen as a barrier to integration and the free movement of trade and services”.

One the other hand the Council of Europe (CoE) in the promotion of European culture and heritage through its Conventions influences the political sphere. In 2009, with the support of ICCROM and ENCoRE, E.C.C.O. made a submission to the then Steering Committee for Cultural Heritage and Landscape of the CoE, CDPATEP (CDPATEP, 2009, p. 7), in an effort to develop a European Recommendation on Conservation-Restoration (E.C.C.O., 2008). Such a Recommendation would encourage national governments to adopt principles and guidelines for the preservation of cultural assets. The submission coincided with a change in the structure of this CoE committee and did not progress, but the work has subsequently been documented and published (Castaldi, Cueco, Hutchings, & Organisations, 2014).

The Council of Europe recognises the important role of cultural heritage for European identity

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9 An example in this direction is the Law on the Chamber of Restorers in Slovakia, as well as the regulation of conservation-restoration practice in Italy.
in a globalising world and does recognise the necessity of guarantying high standards of practice in conservation-restoration. This is voiced in the Faro convention and Namur declaration (Council of Europe, 2006, 2015) and references to conservation-restoration are cited in the European Heritage Strategy for the 21st Century (Council of Europe, 2017). As a finite resource the management and conservation-restoration of cultural heritage is a complex interplay of roles and activities requiring an interdisciplinary and multidisciplinary approach highlighted by the CoE. In their recently published Factsheets on Conservation-Restoration (Council of Europe, 2018a, 2018b), the role of the public as an agent of care is highlighted in the Factsheet on Preventive Conservation while the need to more clearly identify the roles and responsibilities of the different professionals in the field of cultural heritage protection has been indicated to the EU Commission who have already started this process in their ‘Voices of Culture’ dialogue initiated by the Directorate General for Education and Culture of the European Commission (2015).

The role of the organisations (E.C.C.O., ICOMOS and ICCROM in particular) in the development of common guidelines for practice in conservation-restoration, both at European and International level, is particularly important. The European dimension characterises the work of E.C.C.O. as it informs their approach to the EU Commission and their participation as expert observers to the Council of Europe Steering Committee on Culture, Heritage and Landscape (CDCPP). Currently, E.C.C.O. is deeply involved in Voices of Culture dialogue mentioned above.

A useful tool in enhancing cooperation and coordination of effort between professional organisations is the development Memoranda of Understanding (MoU). E.C.C.O. has a MoU with ICCROM and with ICOMOS.

7. Conclusion

“The transmission to present and future generations of an authentic material heritage, retaining its cultural integrity and historic relevance is the foundation-stone of contemporary heritage management and practice. It is what lies behind the emergence of Conservation-Restoration as a discrete field of study and a professional discipline.” (Corr, 2018). This simple statement places into perspective the role of conservation-restoration and by extension the profession into the wider landscape of heritage, its practice and protection. That we are authorised to do this is a condition of being human, our heritage manifests who we are and how we take care of it is a statement of value. In response to this imperative the discipline of conservation-restoration has evolved as have the precepts and guidelines that now govern the profession.

In conclusion, in its complexity conservation-restoration is a critical act. As Paul Philippot
pointed out in 1960: “The job of restorer\textsuperscript{10} can in no way be regarded as the mere execution of instructions defined entirely outside of it by the critic or the laboratory... The thought must always be there on alert, a thought that controls, interprets and adapts, i.e., continually creating because, like an aesthetic and technical problem, it resides within the work that it directs... The best instructions will mean nothing, if the person that carries them out does not actually accept them in order to portray them” (as sited by Stoner and Verbeeck 2017).\textsuperscript{11}

\textsuperscript{10} The professional title “restorer” was commonly used in English at the time Paul Philippot wrote his article (1960). During the 1980s, in the UK and USA, the title “restorer” was gradually substituted with “conservator”. In the last couple of decades, the hybrid title “conservator-restorer” is widely used internationally, as it reflects both the heritage of the title ‘restorer’ and the complexity of the professional activity.

\textsuperscript{11} The text was published originally in French in Studies in Conservation, 1960 and later translated in German and Spanish. With thanks to Joyce Hill Stoner and Muriel Verbeeck-Boutin for their inspiring paper at ICOM-CC congress in Copenhagen 2017, where these quotes were published in English.
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ETHICS AND BASIC PRINCIPLES OF RESTORING HISTORICAL STONE MONUMENTS

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Abstract: The paper discusses ethical guidelines in relation to the conservation of historical monuments made of stone. The presented rules consider the building stone specificity and its susceptibility to various corrosion factors and the character of deteriorated areas in that kind of historic monuments. The basic conservation rule sounding Primum non nocere is deconvoluted to more particular principles like: (i) to preserve authentic historical matter as a carrier of artistic, scientific and historical value of the object, (ii) to provide minimal scale of intervention, (iii) to provide the reversibility of the methods and particularly materials used from conservation or reconstruction works, (iv) to provide distinguishability of reconstructions parts and (v) to provide the integrity of the work of art. The adaptability of these particular rules to the of conservation of stone artistic artefacts is also presented.

Keywords: Stone conservation, ethics and principles of restoration

"To save the national legacy from oblivion and pass it down to posterity has always been a holy and dear obligation of all peoples."
Monumenta Regnum Poloniae Cracoviensia from 1821.

For centuries „rock“ or „stone“ have been considered as materials of exceptional durability and resistance which is proved by proverbs or records in literature of many nations, religions or cultures. However, also these materials deteriorate in the course of time. The pace and mechanism of corrosion depend on the mineral constitution of the rock and the conditions to which they have been exposed to. Rocks have been a subject of the creative activity of sculptors and stonemasons, who have created magnificent sculptures or architectural details. These works of art have often been displayed outside, in changeable climates, exposed to rainfall as well as solid and gaseous air pollution. This results in damage which can be divided into two basic groups: this which is impossible to identify on visual inspection i.e. cracking inside the element or stone disintegration under covering layers, and the one which can be identified visually e.g. black crusts formed on the stone surface, cracking, peeling off, detached fragments, granular disintegration (Fig. 1 and 2). Particularly in the latter case,
when the damage is clearly visible, the historical objects become subject to conservator-restorers' work.

Fig. 1 Egypt, Sphinx, deterioration of lime stone (J. W. Łukaszewicz)

Fig. 2 Gdańsk, sandstone Gotland, architectonic detail - black crusts formed on the stone surface, cracking, peeling off, detached fragments, granular disintegration (J. W. Łukaszewicz)

Let us ask a question: What are the rules of restorer's intervention? Are they constant regardless of the type of object, or just the opposite? What is the acceptable extent of restorers' intervention?

The conservator-restorers' protection covers historical monuments and works of art. According to the definition used in the „Polish Law on protection and conservation of historical monuments”, a historical monument is „a piece of real estate (immovable property) or
a movable property, their parts or groups, which have been created by man or as a result of human activity and which constitute a testimony of the bygone epoch or event, whose preservation is of social interest due to its inherent historical, artistic or scientific value” (Law of 23.02.2003, Art. 3, item 1). As regards a piece of art, it was perfectly defined by Professor Wojciech Krupnik from the Academy of Fine Arts in Warsaw who, referring to the discourse of the ancient philosophers – Plato and Aristotle, said that it is „a place where an idea and matter met and were transformed into beauty” (Kurpik, 2007, pp. 29-30).

Thus, a restorer’s task is to preserve both the original (authentic) material and form of a piece of art, as well as its function and the place where it is displayed, which is a crucial issue in the case of tombstones. In the context of restoration of historical monuments, a particular emphasis must be put on the protection of their artistic, historical and scientific values.

An idealistic aim of the activities connected with conservation of cultural heritage and historical monuments is taking special care to preserve the monuments and artefacts in their original form for posterity. Achieving this aim requires preserving the authentic matter which is the carrier of form, that is, the creator’s idea. As regards historical stone monuments, it is a particularly challenging and debatable issue as the damage can be frequently very extensive and the necessary restorer’s intervention both in the material and non-material sphere can be likewise deep and extensive.

The scientific principles of stone monument restoration were created parallelly to the heated debate held between the supporters of Eugene Emanuel Viollet-le-Duc (1814-1879) and those of John Ruskin (1819-1900). Although Eugene E. Viollet-le-Duc did not create strict rules of restoration procedure, he accepted a far-reaching transformation in order to return an object to its stylistic purity, but also advised an individual approach to each artefact, which has become one of the principal contemporary rules of all restoration activities (Jakimowicz, 1966). John Ruskin, who held a totally opposing view, believed that restoring a historical monument is „a lie, from the beginning to the end” and leads to the destruction of the monument (Frycz, 1975). Therefore, he advocated only preservation works aimed at maintaining the monument in its current state. The discussions created a framework of conservation and restoration procedures. As a result, the first acts were created, such as the Athens Charter and Venice Charter which clearly define and differentiate the scope of conservation and restoration works (Vademecum, 2015).

Historical stone monuments and works of art are an integral part of cultural heritage, therefore the issues concerning the ethics and rules of conduct must not be considered separately. They are closely related to the stone material.

At the turn of the 19th and 20th century the theoretical restoration thought evolved very quickly. Simultaneously, there was intensive research aimed at explaining the mechanisms of deterioration of stone monuments and methods of their conservation. As early as the 19th century, methods of stone consolidation were developed (Annon, 1861; Church, 1862; Barff, 1860; Kessler, 1883). The research on the mechanisms of deterioration of stone monuments and developing methods of their conservation is conducted by members of the International
Scientific Committee on Stone (ISCS ICOMOS) (www.iscs.icomos.org). Despite the fact that the Committee on Stone does not carry out research on the theory of conservation, all our actions must be in compliance with the theoretical principles, ethics of conservation and rules of conservation conduct.

One of the primary ethical rules in historical monuments' conservation, identical to the one which applies in medicine, is the Hippocrates's *Primum non nocere* - *first, do no harm* (Gaczoł, 2015). Just as every patient is an individual case for a doctor, every historical monument or work of art is exceptional and treated individually. Therefore, before commencing conservation works, it is of utmost importance to correctly recognize and inspect the monument or work of art. Stone objects are studied using state-of-the-art equipment, which allows to put a correct diagnosis as to the cause of the damage or deterioration. Then, a plan of conservation works is prepared in order to select appropriate methods and materials. A decision is also taken as to the extent of the restoration fillings and possible reconstructions. The choice of the materials and conservation methods applied in the conservation works is made on the basis of the simultaneously conducted basic research which aims to invent and develop new methods of performing particular stages of conservation works such as removing crusts, desalination, reinforcement, filling gaps or using hydrophobic agents (water repellents). The main criterion of approving new materials for practical usage is the absence of any impact on or interaction with the historical material i.e lack of any adverse effects that would deteriorate the condition of the stone object. Such approach is in compliance with the principle of *Primum non nocere*, which in the case of historical stone monuments is crucial due to their complex mineral composition and porous structure as well as the usually large size of the objects.

A primary rule of conservation is taking care to *preserve authentic historical matter* as a carrier of artistic, scientific and historical values of the object. In the past, it was a common practice to remove damaged fragments of stone monuments, gaps were enlarged and frequently formed in geometrical shapes in order to facilitate matching fillings made of new stone (Fig. 3) A similar practice was applied in conservation or restoration of brick walls – damaged bricks and mortar were removed and replaced with new ones (Fig. 4). This procedure led to a systematic replacement of authentic elements with new ones.
The development of new technologies has provided new materials, recently even in nanoscale, and gave us at our disposal numerous substances and methods which enable an effective consolidation of disintegrated and weakened stone elements. It allows to preserve the original material to a full extent (Łukaszewicz, 2002). While studying an object prior to commencement of conservation works, one must pay a particular attention to the historical transformations which have been made to the historical monuments for example secondary layers of paint or added architectural details.

Their preservation testifies to the history of the object and has an exceptional historical and scientific value. However, each case should be considered on an individual basis, as it was a frequent practice, particularly in the 19th century, to use materials which had a detrimental
effect on stone monuments. In such cases, it is necessary to entirely or partly remove such additions. Thus, we are moving on to the next rule of conservation procedure – the so-called **minimal intervention**. When is it applied? Basically, it concerns all stages of stone monuments conservation. However, we often face this problem when removing secondary additions.

The scope of works in such case must be limited only to the removal of only the secondary additions which, due to their structure and properties, adversely affect the condition of the existing original stone and may contribute to faster deterioration of the original matter. These include cracked oil paint layers which peel off together with the underlying base which seal the stone and prevent unobstructed evaporation of water from the object, or mortars, plasters or cement screeds. The principle of minimum intervention also refers to the process of consolidation of historical monuments.

The preferred materials are those which effectively reinforce the stone, are evenly distributed throughout the object, for example TEOS (consolidants base on tetraethoxysilane), but the amount of the substance introduced into pores is scarce so that it forms thin layers inside the pores. Consequently, the open porosity of the stone is not reduced more than by 20% (Łukaszewicz, 2002). It is also debatable to use water repellents as they cause a permanent and irreversible change of the hydrophilic properties of stone into hydrophobic ones.

A separate issue is the extent of reconstruction. It also requires individual approach. There are objects of exceptional artistic and historical value, with a certain image created in the past, e.g. the Venus of Milo or the Nike of Samothrace, for which nobody will make decision to carry out partial reconstructions. It is much easier to make such decisions in the case of sculptures which are known to local communities or are cult objects. They are frequently reconstructed, maybe completely or only partially, however not always on the basis of a properly prepared archival documentation (Warsaw Recommendation 2018).

Another frequently mentioned rule of conservation is the **reversibility** of the methods and particularly materials used from conservation or reconstruction works, i.e. making sure that all the materials introduced into the historical object can be removed without damaging the original material and new, superior substances can be then introduced. Unfortunately, during conservation of stone monuments, this rule cannot be fully observed, especially with regard to materials used in order to reinforce disintegrated material or to make it hydrophobic. Although the substance introduced into the pores of the material may be permanently soluble or reversible itself, its removal from the object may be very difficult or just impossible. Other procedures such as filling gaps or reconstructions are reversible. Removing mortar or plaster is possible provided that they have been correctly selected for matching the properties of the particular stone type. If their durability and adhesion to the original stone is too great, there may be a problem with reversing such procedure and it may result in damaging the original. This refers to chemo-setting adhesives, which are commonly used for gluing stone. They are also hard to remove due to the lack of possibility to dissolve them after they set.
A subject of numerous discussions on the theory of conservation of cultural heritage, particularly in the case of mural paintings, has been the issue of distinguishability of fillings and reconstructions and their extent. One must mention Cesare Brandi's theory here (ed. Szmelter & Jadzińska, 2007). In the case of stone monuments, the theory is implemented in various ways. In the past, the scope of reconstruction was frequently limited only to the reconstruction of repeated elements or recognizable architectural details. It was often made using natural stone or mortars which were clearly noticeable. Currently, the scope of reconstruction is much wider, but it must be always based on iconographic documentation allowing to perform the task correctly.

As far as fillings and reconstructions are concerned, the only distinguishing feature can be a slight difference in colour. As regards the texture of the materials used for reconstruction, it is based on the choice of the components and the properties of the mortars and the natural stone. Their physical properties are a basic criterion of their choice, that is, they must be analogous or compatible with the original. In this way, we have reached one of the last important principles of conservation works i.e. the integrity of the work of art, or its final arrangement, and consequently its aesthetic reception. This issue is not only important from the point of view of the specialists in conservation-restoration but also for social and environmental reasons. We should aim at maintaining cohesion and integrity of the entire object instead of creating „conservation compositions” which are obscure and incomprehensible for the recipients of the work of art.

A good example of such a conservation procedure is the epitaph of Andreas Gretsch and his wife Anna in the SS Johns' cathedral in Toruń. The masterpiece has been preserved since 1527 and although it has been housed inside the church it was nevertheless exposed to various adverse factors such as fire, leaking roof, or being covered with a thick layer of oil paint (Fig. 5). During the conservation-restoration works, the thick layers of paint were removed, thus revealing the beauty of the central presentation with sculpted details, gilding and polychromy. The architecture of the epitaph was reconstructed with mortar, which composition was similar to the original ones – with the Gypsum binder (Estrichgips).

However, due to the lack of iconographic sources which were the basis for the sculpture in alabaster which constitutes the central scene of the epitaph, that is „The Descent of Christ from the Cross”, the reconstruction of this scene has not been undertaken. The background of the central scene, a painting on a wooden board, was subject to a special treatment. After removing the layer of white paint, the painting was reintegrated with a tonal adjustment, leaving two chronologically different layers of paint, as the wooden boards were probably used secondarily (Fig. 6).
Conclusions

Taking into account the fact that historical stone monuments are a part of our cultural heritage, they must not be subject to separate, different ethical principles or rules of conduct.
- The ethics of conservator-restorer's profession is of utmost importance, and apart from the principle of „Primum non nocere” it must be supported by a thorough knowledge and skills of the highest standard.
- Despite the permanence of the principles governing the preservation of cultural heritage, they require certain modifications depending on the various typologies of historical monuments and therefore a particularly important issue is the individual approach to each object.
- Certain distinctness in implementing the basic principles of conservation-restoration works on historical stone monuments results from the composition and properties of the stone materials.
In conclusion, it must be emphasized that apart from the compliance with the principles of conservation-restoration procedure, it is an obligation of the persons involved in the protection of cultural heritage to conduct interdisciplinary studies of works of art, which was already emphasized by Cesare Brandi with the creation of the Istituto centrale per il Restauro in Rome.
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DEALING WITH AUTHENTICITY IN THE CONSERVATION AND RESTORATION OF WALL PAINTINGS AND ARCHITECTURAL SURFACES

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Abstract: Authenticity is a key term in the modern theory and practice of heritage preservation. The great influence of this term began with the Venice Charter and increased in the following decades until this day, as numerous documents and publications have dealt with issues concerning the concept and significance of authenticity. However, the term is characterized by a certain vagueness, despite its central role in the international debate. This article presents three case studies related to the conservation-restoration of wall paintings and architectural surfaces in Germany and Italy and uses them to clarify some central theoretical issues, intertwining them with practical needs and demands. The multi-layered meanings of authenticity in the practice of conservation-restoration can range from the respectful preservation of the handed-on conditions and appearance of a work, with all material remains of its reception and interpretation, to the critical evaluation of historical restorations based on scholarly value judgments, and even to the reconstruction e. g. of architectural surfaces as a method for the sustainable protection of historical findings and a good way to visualize historical presentations and hand on traditions of craftsmanship. For such a broad spectrum of meanings, the term authenticity can become a helpful umbrella term in interdisciplinary and transdisciplinary communication, well-known and appreciated by all experts and by the public. In order to avoid the use of the term authenticity as a catch-all that can mean everything or nothing, the relationship with case studies can bring awareness about the broad palette of these approaches and how the theory and practice of heritage preservation are always interconnected.

Keywords: Wall Paintings, Architectural Surfaces, Authenticity, History of Conservation-Restoration, Theory and Practice of Conservation-Restoration, Lacunae, Methods and Techniques of Reintegration, Reconstruction.
Introduction

Authenticity is a key term in the modern theory and practice of heritage preservation, as emphasized in the introduction of the Venice Charter’s statement on historic monuments: “It is our duty to hand them on in the full richness of their authenticity”. (The Venice Charter, 1964) In fact, the great influence of this term began with this remarkable statement of 1964, because “authenticity” in previous theoretical treatises on the preservation and conservation-restoration of cultural heritage held only a marginal significance, in comparison e.g. with the central discussion on the definition of the term “original” in its artistic and historical significance (see e.g. Brandi, 1963). In his essay “Authenticity? The dogma of self-delusion” David Lowenthal outlines this phenomenon: “The cult of authenticity pervades modern life. Titles of publications with the words ‘authentic’, ‘authenticity’ and ‘authentication’ have multiplied fivefold since the 1970s. All arts agree on the need to be authentic, if on nothing else”, and he analyses the multi-layered historical, social and psychological aspects of authenticity with amusing and astonishing but in any case, meaningful examples (Lowenthal, 1992, quotation p. 184).

Published twenty years after the Venice Charter, the Nara Document on Authenticity (The Nara Document, 1994) offers essential support for a comprehensive understanding of the complex meanings of authenticity, against the risks of levelling in a globalized world. Refusing every kind of normative definition of authenticity, the Nara Document claims respect for different cultures and regions of the world with their specific traditions of preservation of cultural heritage. It highlights the pre-condition of gaining knowledge from all information sources as an essential basis for assessing all aspects of authenticity. Already one year before, in 1993, Wilfried Lipp had argued against a reduced and unilateral understanding of the term authenticity, as often practised by historical science, with its exclusive assessment on “facts” and without consideration of the transitory character of historical monuments in their time-bound reception and transformation (Lipp, 1993).

Authenticity is a challenging term closely connected to conservation ethics today, characterized both by high expectations and, at the same time, by a kind of “shimmering vagueness”. In his publication with the felicitous title Schillernde Unschärfe¹, Tino Mager gives a comprehensive analysis of the multifaceted term authenticity with its etymology and its meanings over the course of time, in reference to historical monuments (Mager, 2015). He interprets the boom of the term as a postmodern phenomenon characteristic for the disorientation of our time, connected with the desire for values such as truthfulness and genuineness without answering for their validity. The authentic is unspecific and is able to become an ideal only when the claim for universal evidence, narratives and truth begins to

¹ Schillernde Unschärfe could be approximately translated as “shimmering vagueness”. I refer to Mager’s term with this translation.
dissolve (Mager, 2015, p. 27).²

In all this “shimmering vagueness”, let us try to turn from theoretical statements to the real world. In the present-day practice of conservation-restoration in Europe, we need to evaluate representative case studies in order to define the multi-layered significance of authenticity for our cultural heritage, and to develop methods and techniques of how to preserve and to communicate the manifold and diverse values closely connected to this term. In the following, three case studies related to the conservation-restoration of wall paintings and architectural surfaces in Germany and Italy are presented in order to clarify some central theoretical issues in the face of practical needs and demands.

1. The Romanesque Wall Painting Cycle in the former Collegiate Church of Brunswick: stratification and imagination of authenticity from the mid-13th century to this day

Upon entering the monumental interior of the Romanesque Collegiate Church in Brunswick (Lower Saxony), founded by duke Henry the Lion in 1173, believers and visitors look out on the presbyterium, with the wall painting cycle in the chancel, the crossing and the transept, dated in the 1240s and signed by Johannes Wale (Gallicus).³ It is impressive to observe the figurative scenes with their rich colouring and their ornamental framework covering walls and vaults, in harmonious interaction with the architecture. [Fig. 1]

Fig. 1: Brunswick, St. Blasius, Wall Painting Cycle of 1240/50: View on the vault of the crossing, with the depiction of the Heavenly Jerusalem (Photo Credit Commons.wikimedia.org)

² The original German by Mager reads: “Seine schillernde Unschärfe reflektiert daher die Sehnsucht nach Werten wie Wahrhaftigkeit und Echtheit, ohne dabei für ihre Gültigkeit zu bürgen. Das Authentische ist unspezifisch und konnte erst in einer Zeit zum Ideal erkoren werden, als sich der Anspruch auf Universalität von Anhaltspunkten, Erzählungen und Wahrheiten aufzulösen begann.” (Mager, 2015, p. 27).

³ The signature preserved to this day is painted on a pillar in the main nave. Unfortunately, it is impossible to identify Johannes Wale (Gallicus) with a historically verifiable artist active in Saxony in the thirteenth century. For more detailed information on history of art and iconography, see: Wolter von dem Knesebeck, 2014.
The narration depicts the Christian history of salvation, from the prophecy of Christ's advent on earth in the Old Testament up to the eschatological vision of the Heavenly Jerusalem. (Schädler-Saub, 2000, pp. 80-84, Wolter von dem Knesebeck, 2014). Observers' distance to the monumental walls and vaults is huge and in the dark presbyterium the painting cycle is not completely discernible in all its details, but the ambiance evokes a fascinating mystic impression. This is, without any doubt, a medieval church interior handed on "in the full richness of its authenticity".

Through scholarly archive studies and in situ scientific investigations related to the materials and techniques, the sequence of stratification, and the preservation status of the various painting layers, we can reconstruct the literally multi-layered history of this painting cycle, from its creation in the mid-thirteenth century to the subsequent whitewashings and the later uncovering in 1845. This was followed by a total of three restorations in the nineteenth century, the first in 1845–54 carried out by Heinrich Brandes immediately after the uncovering, the second in 1876–1881 by August von Essenwein and the third in 1895-1898 by Adolf Quensen; the latter two involved a nearly complete over-painting. (Fig. 2) In the twentieth century, those restorations provoked a de-restoration in the 1930s by Prof. Curdt, and a re-restoration in the 1950s carried out by the conservator-restorer Fritz Herzig (Schädler-Saub, 2000, pp. 67-80). [Fig. 3] This complex history of conservation-restoration is a history of appreciation and neglect, of acclaimed rediscovery and a following series of reception and interpretation in the spirit of the respective time period, always with the goal to identify the true medieval paintings and to present them in their whole significance and beauty, i.e. in their authenticity.

Fig. 2: Brunswick, St. Blasius, View from the nave to the crossing and the chancel, after the re-restoration of the wall paintings by Adolf Quensen 1895–98. Photo 1899 (Photo Credit NLD Hanover).

Fig. 3: Brunswick, St. Blasius, Wall Painting Cycle of 1240/50: Detail of the southern transept, southern wall, during the de-restoration carried out by Prof. Curdt, Hanover, 1938/39 ca. (Photo Credit Niedersächsisches Landesamt für Denkmalpflege NLD Hanover)
The respective imagination of the authentic appearance of the painting cycle in the course of time, from the mid-nineteenth century to the 1950s, could be theoretically reconstructed by studying the documentations fortunately preserved to a large extent (see also: Hentschel & Aßmann, 2002). By looking at the tracings carried out by Brandes in 1845, in which translucid papers were applied directly on the uncovered fragmentary wall paintings, with a reintegrative drawing of the lacunae, we are able to detect some reminiscence of neo-classical style. The water colour copies designed by Adolf Quensen in 1895 show an academic assimilation of Romanesque style based on comparative studies with the numerous Romanesque wall paintings uncovered at that time. From the 1890s to this day, various documentations with black and white photos and, since the 1950s, colour photos, provide testimony to the changing appearance of the painting cycle, as a transitory work re-interpreted again and again with the imagination and expectations projected onto the handed-on wall paintings by every generation of conservator-restorers. The most curious example of a continuously evolving reception and interpretation is the transformation of the wall paintings in the conch of the main apse, from 1845 to the 1950s. [Fig. 4, 5, 6] Due to the very few original findings in the conch after the uncovering in 1845, Brandes opted for a simple decorative painting in neo-medieval style, instead of an impossible reconstruction of the Romanesque depiction. Adolf Quensen in 1895 rejected this solution as not conform with the spirit and the iconography of a Romanesque painting cycle. He decided to freely reconstruct the depiction of Christ in Majesty among figures of Saints. His painting was probably not based on the very poor findings still preserved in situ but referred to similar Romanesque depictions. In the 1950s, Fritz Herzig decided to perform a de-restoration of the wall paintings in the apse, not carried out in the 1930s, with a following re-restoration. In fact, Herzig reduced Quensen’s painting layer and re-interpreted the underpaint layer, as well part of Quensen’s work,⁴ in a sober style, thus reflecting a “more Romanesque” and “more authentic” design typical for the taste of the 1950s (Schädler-Saub, 2008, pp. 145-146).

⁴ It is unknown if Herzig identified the underpaint layer as part of Quensen’s work, or if he assessed this layer as the reduced medieval painting layer.
Fig. 4, 5, 6: Brunswick, St. Blasius, Wall paintings in the main apse: fig. 4 after the restoration of Heinrich Brandes 1845–1854, with a decorative painting in neo-medieval style; fig. 5 after the re-restoration of Adolf Quensen 1895–1898, with a freely reconstructed neo-medieval depiction of Christ in Majesty; fig. 6 after the de- and re-restoration of Fritz Herzig in the 1950s, with a re-interpretation of the neo-medieval depiction. (Photo Credits Niedersächsisches Landesamt für Denkmalpflege NLD Hanover)

Returning to the direct observation of the wall paintings, at close range, i.e. from the scaffoldings, it is clearly visible that the paintings today are characterized by the intervention of the 1950s, with a cross hatching reintegration carried out in secco-technique that mostly covers the heterogeneous and heavily damaged historical painting layers. [Fig. 7] Because of this, the reintegration does not respect the demands of modern conservation ethics at that time because it is not limited to the lacunae but rather spreads out like a mesh. For Fritz Herzig, this was the only way to regain the image, i.e. the visual value of the painting cycle in interrelation with the architecture, but with some misunderstandings and misinterpretations. Due to the modest investigation techniques at that time, he was not able to clearly identify the few fragments of the very delicate original tempera paintings and to distinguish them from the subsequent over-paintings. From the normal viewer distance, of course, these problems that are essential for a scholarly conservation-restoration and a well-founded analysis of history of art, are optically of no consequence.
Fig. 7: Brunswick, St. Blasius, Wall Painting Cycle of 1240/50: Depiction of Christ's Resurrection in the southern transept, after the re-restoration by Fritz Herzig, in the 1950s (Photo Credit Jutta Brüdern, 1980 ca.)

Today, we can only conserve the preservation status of the wall paintings as they have been handed on to us. The aesthetic impression from a larger distance is very beautiful. Thanks to modern non-invasive investigation techniques, we can increase our knowledge about the artistic values of the medieval wall paintings and about their materials and techniques, as well as about the subsequent over-paintings. Referring to the Nara Document on Authenticity (The Nara Document, 1994), we can offer to the public a well-founded knowledge and understanding of all these sources of information related to assessing all aspects of authenticity and to appreciating this multi-layered historical authenticity and preserving it for the future.

The essential significance of the history of restoration for a comprehensive understanding of the Romanesque wall painting cycle in Brunswick is not at all a singular case but rather is characteristic for many European wall paintings, even though it remains difficult to this

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5 This is the wise decision of the State Department for the Preservation of Cultural Heritage of Lower Saxony (NLD) and its laboratories of conservation-restoration, which promoted this concept together with the Department for Cultural Heritage of the Protestant Church of Brunswick responsible for monitoring and maintaining the wall painting cycle in the former Collegiate Church (today Protestant parish church) in Brunswick.
day to implement the respect and the preservation of historical restorations. The long-time neglected values of the history of restoration as an integrative part of our cultural history and a precious testimony to the reception and interpretation of cultural heritage throughout the generations, are emphasized in the Document of ICOMOS Germany on “European Wall Paintings and Painted Architectural Surfaces of the Middle Ages: Recommendations of how to deal with the results of earlier restorations”. Published in 2002, it contains the clear statement in § 2 that the conservation of the handed-on state must always have priority – as far as it is able to agree with verifiable urgent needs of conservation (Petzet, Schädler-Saub & Exner, 2002).

Without any doubt, historical restorations with their material and immaterial significance are part of monuments’ authenticity. Here we can also refer to Salvador Muñoz Viñaz’ “Contemporary Theory of Conservation”. In chapter 4, “The decline of truth and objectivity”, he criticises the concept of conservation as “truth-enforcement”, i.e. the idea that conservation can reveal the true appearance of a work by eliminating later additions. Rightly he emphasises that the present condition of the work is necessarily the only actually authentic condition. Presenting the example of the de-restoration of the Lansdowne Herakles started in 1976, he points out how the removal of authentic imprints of real history (in this case, the substantial work of a neoclassical sculptor who integrated the antique marble sculpture in 1792) that were considered truth-concealing, i.e. alien to the object, is legitimated with the confusion of “authentic” with “preferred” or “expected”. In this way, the subjective decisions of curators and conservators can destroy the real authenticity of a work (Muñoz Viñaz, 2005, pp. 91-99).

2. Piero della Francesca’s Legend of the True Cross in the main chancel of San Francesco in Arezzo: the demands of historical and aesthetic authenticity

Now a central question arises: Must we generally preserve all historical restorations without any critical evaluation? Or can we preserve historical authenticity by also considering the artistic values of a monument? Referring to a central issue of Cesare Brandi’s Theory of Restoration, every conservation-restoration concept needs to consider the historical instance as well as the aesthetic instance (Brandi, 1963; Brandi,1977). In this area of dialectic conflict, we must balance between two apparently opposite positions and find a wise compromise. Moreover – and this is a very complex and challenging task especially for conservator-restorers – sometimes we must consider urgent requirements of safeguarding and conservation that come into conflict with the principle of totally preserving the handed-on conditions of cultural heritage. By learning from so many radical conservation-restoration concepts also in the recent past, here we should not argue for a complete de-restoration

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6 For Brandi, the two instances, in Italian “istanza della storicità” and “istanza estetica” are the fulcrum for developing appropriate concepts of conservation-restoration, as he explains in chap. 5 and 6 of his theory. See: chap. 5, pp. 29-37, and chap. 6, pp. 39-47, quoted from the edition of 1977 (this edition is an unmodified reprint of the edition of 1963, but with the addition of the Carta del Restauro of 1972 in the appendix).
based on false pretences of an inevitable action in order to preserve the original material, but instead advocate a wise compromise also in this technical context.\(^7\)

An exemplary case study for evaluating this complex of problems is the conservation-restoration of the wall painting cycle in the main chancel of the St. Francis Basilica in Arezzo, created by Piero della Francesca in 1453–66 and depicting in monumental scenes “The Legend of the True Cross”. The conservation-restoration was carried out from 1985 to 1999 in the spirit of Brandi’s theory and with the implementation of Umberto Baldini’s “Methodological Unity” (Brandi, 1963; Brandi, 1977; Baldini, 1978; Baldini, 1981).\(^8\)

Without entering into the very complex analysis of their preservation conditions before the project started, it should be pointed out that the intervention was necessitated by very serious damages due to structural problems with older and newer static cracks, associated with dramatic losses of intonaco and painted surfaces, as well as by inappropriate materials applied in the past especially for the consolidation of the masonry and the wall paintings, and by widespread salt efflorescence on the surfaces with flaking and powdering phenomena on the painting layer (Un progetto per Piero della Francesca, 1989; Maetzke, 1998; Maetzke et al., 2001). The comprehensive scientific investigations at the beginning of the work led also to a deepened knowledge of the original painting techniques and of the restoration history (Un progetto per Piero della Francesca, 1989; Centauro, 1989; Maetzke et al., 2001).\(^9\)

In the context of this paper, I will analyse only some presentation aspects related to issues of authenticity, starting with notes on the restoration history of the wall paintings closely connected to these issues. The first comprehensive restoration of Piero’s wall paintings was carried out in 1858–1861 by the Florentine painter and restorer Gaetano Bianchi (1819–1892), who at that time was well respected for his restorations of Giotto’s wall paintings in the Bardi and Peruzzi Chapels of Santa Croce in Florence. His restoration of Piero’s wall paintings in Arezzo is not traceable in all details, but archive research and findings in situ show that he reintegrated some of the big lacunae in the figurative scenes with an “impressionistic” technique by insinuating the original shades and forms in a way clearly discernible from the original painting. Such a choice at that time was innovative

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\(^7\) In this article, these very complex technical aspects cannot be elaborated further, but we should keep clearly in mind that they can be essential for important aspects of the theory and ethics of conservation-restoration. Thus, being heedful of the demands of restoration history, e. g. a cautious cleaning of a wall painting that mediates between original parts and historical additions, can reduce the aesthetic divergence and the phenomenon of a different aging between older and younger parts and lead to the acceptance of such a historical testimony.

\(^8\) The scientific investigations and the conservation-restoration were carried out under the direction of the Soprintendenza ai beni ambientali, architettonici, artistici e storici di Arezzo and the Opificio delle Pietre Dure of Florence, with the support of the ICR in Rome, the CNR and the Institute of Chemistry and Physics of the State University in Florence. The results of the comprehensive archive research and scientific investigations are documented in: Un progetto per Piero della Francesca, 1989.

\(^9\) For more information on the methods and results of the investigations on the wall painting cycle of Piero della Francesca, see the following contributions: Matteini et al., Indagini diagnostiche; Bensi, Materiali e procedimenti pittorici; Lazzeri, Ricognizione visive, all published in: Un progetto per Piero della Francesca, 1989, pp. 232-284.
and unusual for Bianchi, who generally practiced an imitative reintegration of lacunae, e.g. in the aforementioned restoration of Giotto’s wall paintings in Santa Croce. This modern method of reintegration was probably directly influenced by the art historian and conservator Giovanni Battista Cavalcaselle (1819–1897), the great promotor of a philological method of conservation-restoration (Conti, [1973] 1988, p. 271). In his statements on the preservation of works of art, Cavalcaselle claimed to have full respect for the original, and even if this was in bad conditions, he asked for conservation instead of “artistic” restoration and suggested “neutral” integrations of lacunae paler than the shades of the original, thereby avoiding every sort of lie (Conti, [1973] 1988, pp. 280-290; Ciatti, 2009, pp. 241-246).

After a comprehensive remediation of structural damages, a new restoration followed in 1915–16, carried out by the Florentine restorer Domenico Fiscali (1858–1930) and principally dedicated to consolidating the masonry – unfortunately with extensive cement injections. But in the end, he reintegrated lacunae as well with pastel colours in order to regain a harmonic appearance of the fragmentary paintings. He emphasized the advantages of this method, probably inspired by the principles of Cavalcaselle, by claiming that pastel colours are easily removable and clearly discernible from the original (Centauro, 1989, p. 132). Fiscali criticised Bianchi’s reintegration with “erroneous tempera colours” and removed

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**Footnotes:**

10 Bianchi carried out such imitative reintegration in Arezzo, too, but mainly in those parts with painted architectural elements etc. and not in the figurative scenes. See: Centauro, 1989, with a photo Fig. 107, p. 113.

11 Cavalcaselle commented on Bianchi’s work on Piero’s wall paintings as being conducted with “a lot of caution and love” and then he explained the “neutral” method of reintegration of lacunae: “Nuovo intonaco si fece nelle parti mancanti dandogli un colore da offender meno l’occhio del riguardante.” (Quoted from Conti [1973], 1988, p. 271).

12 For the general principles of Cavalcaselle, see: Cavalcaselle, 1863. This document is partially quoted in: Conti [1973], 1988, pp. 287-290. For the above-mentioned statement of Cavalcaselle, see the following ministerial order for the preservation of paintings written by himself: Circolare ministeriale sulla riparazione dei dipinti, dettata da Giovanni Battista Cavalcaselle il 30 gennaio 1877: “Dove mancassero i colori, stendere una tinta o tinte che si avvicinino ai colori originali della pittura, tenendole sempre qualche poco al di sotto della vivacità delle tinte locali e tanto quanto non offenda l’occhio del riguardante. […] La bugia, detta ancor con bel garbo, dovrebbe essere tolta di mezzo. E con ciò lo studioso potrà distinguere in un dipinto restaurato in questa guisa quello che è originale da quello che è nuovo, a cavarse li ammaestramenti”. (Quoted from Ciatti, 2009, p. 245).

13 The consequences of these cement injections for the preservation of the wall paintings were dramatic; see: Un progetto per Piero della Francesca, 1989, and Maetzke et al., 2001.

14 This is the explanation of Fiscali: “Il mio restauro a pastello a preferibile ad altro sistema, prima perché è di facile rimozione qualora non piacesse, poi per non confonderlo con vecchi restauri eseguiti (forse troppo in abbondanza) con sbagliati colori a guasco.” (quoted from: Fiscali, D. (1917). Relazione sulle riparazioni ai dipinti murali di Piero della Francesca nel coro di San Francesco in Arezzo. In: Cronaca delle Belle Arti (Supplemento al “Bollettino d’Arte”, 1/2, gennaio/febbraio 1917). This document of Fiscali is quoted from Centauro, 1989, p. 132. Findings in situ and the analysis of historical photos show that Fiscali did not use only pastel colours for his reintegration but also pencils, e.g. for drawing the contour plot. See Maetzke in: Un progetto per Piero della Francesca, 1989, pp. 69-70.
many of them, but not all.\textsuperscript{15} [Fig. 8]

Fig. 8 Arezzo, St. Francis, Piero della Francesca, Wall painting cycle “The Legend of the True Cross”; Detail of the scene with the “Victory of Constantine over Maxentius at Pons Milvius”, with the reintegration of lacunae carried out before 1961 (by Gaetano Bianchi or Domenico Fiscali). (Photo Credit: Scala Firenze, reprint from: “Piero della Francesca. Die Kunst-Reihe in Farben, Deutsche Buch-Gemeinschaft Berlin – Darmstadt – Wien, 1965)

A new conservation-restoration of the wall paintings followed in 1961–65, carried out by the renowned conservator-restorer Leonetto Tintori (1908–2000). It was based on modern scientific investigation but unable to remove or at least to reduce the deterioration causes.\textsuperscript{16} Concerning the aesthetic presentation concept, a scientific committee decided to substitute all historical reintegration of lacunae with pure and light “neutrals”, with very little variations of tone but without any formal insinuation. In practice, Tintori and his team applied a thin

\textsuperscript{15} In doing so, some of Bianchi’s „impressionistic“ reintegation in the lacunae were preserved as well as some of his more imitative reintegration in the background of figurative scenes, such as the treetops in the “Esaltazione della Croce”. See Maetzke in: \textit{Un progetto per Piero della Francesca}, 1989, pp. 69-70.

\textsuperscript{16} Unfortunately, detailed reports on Tintori’s conservation-restoration do not exist, but the investigations of the 1990s could identify in large part materials, methods and techniques of this intervention, see: \textit{Un progetto per Piero della Francesca}, 1989.
“neutral” coating directly on the historical reintegrations of 1858–61 and 1915–16, without removing them. All the professionals involved agreed with the result of these “neutrals”; only Cesare Brandi was aesthetically not convinced by the tone (Centauro, 1989, p. 139). After the conclusion of the work, the presentation of Piero della Francesca’s painting cycle with the “neutral” treatment of lacunae provoked violent debates on the presentation concept. The art historian and conservation-restoration expert Alessandro Conti complained not only about these “neutrals” but also about the arrogance of those responsible for the removal of the aesthetically much better reintegration carried out by the predecessors (Conti, [1973] 1988, p. 271). [see Fig. 8-9]

As this case study exemplifies, the research on restoration history should also consider former debates about the quality of a coeval intervention, especially concerning its aesthetic results because in contrast to conservation treatments, they are well visible not only for experts but also for the public. Thus, we can make the case that the claim for preserving historical restorations in the name of authenticity cannot be generalised but needs critical evaluation with respect to ethical and aesthetic principles as well as to scientific and technical aspects and to the social context of its time.

Fig. 9 Piero della Francesca, Wall painting cycle "The Legend of the True Cross", Scene with the "Victory of Constantine over Maxentius at Pons Milvius", after the restoration of Leonetto Tintori 1961–65, with "neutral" reintegration of the lacunae. (Photo Credit: Soprintendenza B.A.A.A.S. di Arezzo)

In observing the wall painting cycle of Piero della Francesca, in particular the scene with the "Victory of Constantine over Maxentius at Pons Milvius", after the restoration by Leonetto Tintori in 1961–65 (Fig. 9), we can notice at once how the accidental but very eye-catching shapes of the lacunae distort the artistic message of the painting. Moreover, these shapes are unfortunately stressed by the so-called neutral reintegration, which in addition has darkened in the meantime. Could it be that we are looking at a curious form of a cloud in the foreground of the scene? Should it be part of a particular spatial effect wanted by the artist? We can notice a certain disorientation, an excessive demand on the observers who simply want to enjoy and to study Piero's painting. Here we can quote Brandi’s accurate analysis of the lacuna in his “Postscript to the treatment of lacunae” of 1961\textsuperscript{18}: “… a lacuna is an unjustified, even painful interruption in the form. Moreover, if we remain within the limits of the epoché (that is, if we remain within the limits of immediate perception), through the spontaneous pattern-making of perception, we will interpret the lacuna in terms of a figure and a ground. The lacuna will be sensed as a figure that relegates the painted […] image to the background, against which the lacuna ‘figure’ stands out. The disturbance produced by the lacuna comes much more from this receding of image to ground, and from the lacuna’s violent intrusion, as a figure, into a context that tries to expel it, than from the formal interruption that the lacuna produces within the image.” (Brandi, 1977, quoted from Brandi 2005, p. 92). Thus, for Brandi the goal of an appropriate aesthetic presentation is “… to reduce the lacuna’s perceived prominence as a figure. […] Any ambiguity caused by the lacuna must be supressed; that is to say, its reabsorption of the image, which would thereby be weakened must be avoided.” (Brandi, 1977, quoted from Brandi, 2005, p. 92) Brandi in such a case was perfectly conscious of the aesthetic problems of “neutral zones”, which mostly could not improve the perception of a fragmentary art work. He usually aimed to create a different spatial situation between the painting and the lacuna with the goal to push the latter in the background – and probably he regretfully noticed that this intent in Arezzo failed with Tintori’s “neutral” reintegration.

Instead of preserving or more precisely restoring these very poorly preserved “neutrals” of the 1960s, in the 1990s the “potential unity” of the fragmentary painting was strengthened by reducing the visual predominance of the lacunae and by supporting the original painting with clearly discernible reintegration carried out with Astrazione cromatica and Selezione cromatica, following Baldini’s “Methodological Unity” with an appropriate reintegration.

\textsuperscript{18} This Postscript was a paper Brandi delivered to the 20th Congress of Art History, New York, September 1961. It is published in the appendix of the Teoria del restauro, in the edition of 1977. Here it is quoted from the English translation of Brandi’s theory of 2005.
method for the different typologies of lacunae. As Baldini emphasized, that could be the way to transform a lacuna from a painful interruption to a clearly discernible proposal for a connection between the lost and the still preserved parts of the painting. [Fig. 10]

![Piero della Francesca, Wall painting cycle "The Legend of the True Cross", Scene with the "Victory of Constantine over Maxentius at Pons Milvius", after the conservation-restoration of the 1990s, with reintegration of the lacunae in "Astrazione Cromatica" and "Selezione Cromatica". (Photo Credit: Soprintendenza B.A.A.A.S. di Arezzo)](image)

Fig. 10

A comparison of a detail from the scene "Victory of Constantine over Maxentius at Pons Milvius" depicting Emperor Constantine, before and after the last conservation-restoration, i.e. with the former and the actual reintegration of lacunae (Fig. 11-12), emphasizes a theme of Brandi’s concept of the “historical instance” with its multi-layered facets. Without any doubt, even the worst reintegration does document human activity and therefore it should

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19 See: Baldini, 1978, Baldini, 1981. The Astrazione cromatica offers an objective aesthetic solution for the reintegration of large lacunae that cannot be reconstructed. It reduces their formal impact and thereby, increases the legibility of the original image. The vibrant colour effect of four pure colours on a light background applied with short hatched lines, offers a logical alternative to the traditional neutral integration. The Astrazione cromatica can create an abstract structure that merges optically with the contiguous original. The Selezione cromatica is a further development of Brandi’s concept of Tratteggio; its strictly vertical structure is abandoned. The lacuna is reintegrated with short parallel lines in pure colours on a light background, which follow the shapes and contours of the original alongside them.
not be removed. This position seems historically perfect, but in fact it leads to a conviction of non-authenticity or falsification of the entire work of art. (Brandi, 1963; Brandi, 1977, p. 37) Thus, in evaluating historical reintegration, we cannot avoid a value judgement if we want to preserve the historical authenticity of a work, in terms of a philological critique of the handed-on interventions of the past. Furthermore, with reference to Brandi’s “aesthetic instance” we need also a value judgement if we want to preserve the aesthetic authenticity, sustaining a comprehensive perception and understanding of the artistic message.

Fig. 11-12 Piero della Francesca, Wall painting cycle “The Legend of the True Cross”; Detail of the scene with the “Victory of Constantine over Maxentius at Pons Milvius”, on the left with “neutral” reintegrations of 1965, on the right with reintegrations in "Astrazione cromatica" and "Selezione cromatica" of the 1990s (Photo Credits: Soprintendenza B.A.A.A.S. di Arezzo)

20 Here we must refer to Brandi’s definition of conservation-restoration as a critical act of analysis and interpretation of the handed-on conditions of a work of art. Based on the Italian tradition of the philological methodology in art history and art criticism, this means performing the scholarly analysis of a work of art as a historical document, with its original material and all material traces of its history. It emphasizes the great challenge of conservator-restorers, because conservation-restoration is a highly specialized act of hands-on art criticism. See the Chapter 1, “The concept of restoration”, in Brandi’s Theory of Restoration (Brandi, 1963; Brandi, 1977, pp. 3-8).

21 Brandi’s terms “istanza della storicità” and “istanza estetica” are deduced from the juridical term “istanza”. Thus, these “istanze” demand the respect of all requests concerning historical, artistic and aesthetic issues and, in the end, a well-balanced value judgement.
The conservation-restoration of the 1990s respected the historical and aesthetic values of the wall painting cycle in terms of a scholarly investigation and critical evaluation of its handed-on conditions. The treatment of lacunae in the scene depicting the “Exaltation of the True Cross” shows that a value judgement can argue for the preservation of an “impressionistic” retouching carried out in the mid-nineteenth century by Gaetano Bianchi, because at that time, such a reintegration was a very avant-garde concept influenced by the already mentioned Giovanni Battista Cavalcaselle. This retouching was uncovered, removing the “neutral” reintegration of the 1960s, and preserved as a valuable historical testimony. [Fig.13]

Thus, the critical evaluation of a series of historical restorations and their material remains does not at all mean “either preserve them or remove them”; instead, a detailed analysis and interpretation of all findings is required, step by step. In fact, in Arezzo a sophisticated concept of conservation-restoration could be realised, able to preserve this meaningful work “in the full richness of its authenticity”. We can suppose that Brandi would have been very pleased with this result!

Fig. 13 Piero della Francesca, Wall painting cycle „The Legend of the True Cross“, partial view of the scene with the “Exaltation of the True Cross”, after the conservation-restoration of the 1990s, with uncovering and presentation of the „impressionistic“ retouching by Gaetano Bianchi, carried out in 1858–61. (Photo Credit: Soprintendenza B.A.A.A.S. di Arezzo)
3. The façades of Palazzo Thiene in Vicenza: preservation and mediation of authenticity by means of reconstruction.

The third case study is focused on authenticity issues of architectural surfaces: what is the best way to preserve historical materiality and to emphasize historical appearance? In every-day practice of built heritage preservation, conservators and all other involved persons are often confronted with questions concerning the conservation and reconstruction of render, plaster, paint layers, architectural polychromy, and so on, but in the debates about the legitimacy and significance of reconstruction, these widespread problems are mostly neglected. For this reason, the façades of Palazzo Thiene in Vicenza might illustrate the challenges of preserving architectural surfaces by means of conservation and reconstruction.

For a better understanding, it is helpful to start with a few notes about history. The palace was commissioned by Marcantonio Thiene in 1541 and described and illustrated by Andrea Palladio in his “Quattro Libri dell’Architettura”, so there are no doubts about Palladio’s authorship. Rather unclear, however, are the procedure of the construction work and the dating of the construction phases. In contrast to the original project of a monumental Palazzo with four wings around a courtyard, only the eastern wing and part of the northern wing were built. The stone cornices underneath the Piano Nobile of the eastern wing, on the side of the courtyard and on that of the street, are respectively marked with the year dates 1556 and 1558, so these dates could be related to the construction of the existing wings. (See for example: Cevese, 1952; Puppi, 1973) The first handed-down restoration of the façades dates to 1872–73, after the acquisition of Palazzo Thiene by the Banca Popolare di Vicenza. At that time, the building was in bad condition, so a comprehensive restoration was required, including among other things a new plastering and paint coating of the façades. After this intervention of 1872–73, a new restoration of the façades was carried out only in 1952. In the 1980s, those façades were in a very poor state of preservation, with a few fragments of various plaster layers. The brick masonry was visible to a large extent, clearly distinguishable from the ashlars stone masonry, despite patina and dirt. [Fig. 14] As various Renaissance façades in Vicenza at that time presented visible brick masonry, due to a lack of maintenance and care and the consequential loss of historical plaster layers, the public had accustomed itself to this “historical” appearance. Some experts subscribed to this view of an intentionally visible brick masonry also for Palazzo Thiene, even though Andrea Palladio’s plan of the east façade suggests that the contrast between brick masonry and ashlars stone masonry was not projected by the architect (Palladio, 1570).22 [Fig. 15]

22 See e.g. Pane, 1961. The discussion of whether some of Palladio’s Palazzi – not only Palazzo Thiene – originally might have presented visible brick masonry or not, was current until the 1980s, due to a lack of scholarly investigation on the plaster layers and coatings of the façades.
Through scholarly stratigraphic and scientific investigations of the masonry and the plaster layers carried out in 1988 with a team of conservator-restorers and a building archaeologist, it was possible to identify fragments of plaster and surface finish from the sixteenth to the twentieth century (Schädler-Saub, 1994a and 1994b). The results proved that Palladio's intent was a monochrome design of the façades, with thin layers of intonaco refinished with a layer of marmorino applied in fresco technique on the smooth surfaces in brick masonry of the Piano Nobile, i.e. the representative upper floor. [Fig. 16, 17, 18] The off-white surface originally corresponded to the colour of the characteristic limestone of Vicenza, used for example for the architectural framework of the windows and for the corner ashlars of Palazzo Thiene. The hammered brick ashlars of the ground floor in the sixteenth century were covered by a plaster with mineral additives of different grain size, to accentuate the rustic texture of the surface, making it nearly non-distinguishable from the stone ashlars. The original result was a persuasive illusion of a façade built completely in stone.

23 The investigations were carried out by me together with the conservator-restorer Elke Thiessen and the building archaeologist Reinhold Winkler. The project was supported by Renato Cevese, at that time director of the Centro Internazionale di Studi di Architettura Andrea Palladio di Vicenza, and by Wolfgang Wolters, who held the chair of History of Art and Preservation of Cultural Heritage at the TU Berlin.
Fig. 16, 17, 18: Vicenza, Palazzo Thiene, a partial view and details of the east façade, with fragments of the intonaci and marmorini of the sixteenth and nineteenth century. Fig. 17: Finding of a marmorino of the sixteenth century. Fig. 18: Detail of the brick ashlar (bugnato gentile). (Photo Credits: Ursula Schädler-Saub)
A few pieces of information concerning the historical restorations of the façades should be noted here. The intervention of 1872–73 respected traditional materials and techniques of plastering but with a different aesthetical interpretation concerning especially the plastering of the hammered brick ashlar at the ground floor. Instead of the original soft plastering with pictorial effects, the flanks of the ashlers received a thick rectified plaster layer, with a dramatic accentuation of light and shadow contrasts. At the Piano Nobile, the relative thick new plaster layers accentuated the shadows of the thereby increased recession of the joints. Instead of a marmorino, a paint coat in yellow ochre was applied on the surface of the new plaster. All in all, the plaster layers of 1872–73 contributed substantially to the conservation of the subjacent layers of the sixteenth century. The restoration of 1954 operated mostly on the architectural surfaces of the ground floor; for the first time, a cement plaster or Roman cement plaster was applied, then a finishing with an ochre paint coating.

The goal of the conservation-restoration in the 1990s was to preserve the historical plaster layers of the sixteenth and nineteenth century, and to reconstruct the plaster layers of the sixteenth century as a protective and decorative coat, with the original materials and composition. On the part of the owners as well as the persons in charge, initially there was some reservation about the result of such a reconstruction, due to the loss of patina, i.e. the loss of the familiar and clearly old appearance of the Palazzo. Above all, the involved experts had to admit that a perfect reconstruction of the Renaissance design was impossible. Due to the aging of the limestone, the original monochrome appearance of the façades was not achievable. Moreover, the original aesthetic interaction between the brick masonry and the plaster layers could not be attained, due to the relatively thick packet of the subjacent historical fragments in some places, and to the technically impossible reconstruction of the fresco technique. Regardless of these limitations, thanks to a good communication with all persons involved, in the end the concept of a preservation and mediation of authenticity by means of reconstruction was accepted and could be implemented in practice. [Fig. 19]

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24 The plaster of 1954 could not be preserved, mainly for reasons related to the conservation of the subjacent layers. For the evaluation of the damages and a detailed explanation of the concept of conservation-restoration, see: Schädler-Saub, 1994a, pp. 144-149, and Schädler-Saub, 1994b, pp. 246-249 and 253-254.

25 Such a proceeding is also emphasised in the ICOMOS Principles for the Preservation and Conservation/Restoration of Wall Paintings, adopted in 2003. See the following passus in Article 5: “In some cases, reconstruction of decorative wall paintings or coloured architectural surfaces can be a part of a conservation-restoration program. This entails the conservation of the authentic fragments and may necessitate their complete or partial covering with protective layers. A well-documented and professionally executed reconstruction using traditional materials and techniques can bear witness to the historic appearance of facades and interiors.” (ICOMOS Principles for the Preservation..., 2003, p. 192).
Fig. 19: Vicenza, Palazzo Thiene, The façades from Contrà San Gaetano, after the conservation and reconstruction of the plaster layers of the 1990s (Photo Credits: Christoph Ulmer)

Now we wonder: where is the authenticity of Palazzo Thiene’s façades, with all these differences? Without any doubt, we can find authenticity in the preserved material fragments as truthful sources of information, as well as in the reactivation of traditional craftsmanship, with proven and long-time forgotten materials and techniques of plastering, e.g. the surface refining with a marmorino. Finally, with all given restraint, the reconstruction is an approach for visualizing the aesthetic intentions of Palladio. Thus, we have meaningful elements of authenticity in these façades, even though today they look quite different from the original.

We can add a postscript: the reconstruction of the architectural surfaces of Palazzo Thiene was in the course of a few years so well accepted by the public and by the experts, that various subsequent conservation-restorations of Renaissance Palazzi in Vicenza have adopted this concept, at least from an aesthetic point of view.

Indeed, the benefit would have been greater if the site management had scheduled from the beginning of the reconstruction work a close interdisciplinary cooperation between the conservators and craftsmen in charge, with the goal of preserving as much as possible the findings of the sixteenth and nineteenth century.
4. A short conclusion

The three case studies have been able to exemplify some of the multi-layered meanings of authenticity characteristic for Europe. Firstly, authentic can be the preservation of various receptions and interpretations of cultural heritage throughout time, respecting as far as possible all handed-on material layers of restoration history. Secondly, authentic can also be the critical evaluation of a series of historical restorations and their material remains concluded with a scholarly-based value judgement, with the goal of a sustainable preservation of cultural heritage in its essential material and immaterial features. Thirdly, authentic can even be a reconstruction of architectural surfaces as a method for the sustainable protection of historical findings, and a good way to visualize historical presentations and to hand on traditions of craftmanship.

Since the Venice Charter (1964), the term authenticity has taken an international starring role in the theory and practice of heritage preservation, in spite of or maybe due to its “shimmering vagueness”. Even if a scholarly-based mandatory definition of the term seems all but impossible, authenticity is one of the most appreciated and widespread terms in a professional and social context, well known by experts and non-experts, and thus is suitable as an umbrella term. We can use this umbrella term in interdisciplinary and transdisciplinary communication, keeping in mind that behind it we undoubtedly will find very different and contradictory values, from historical and aesthetic to social and emotional ones, and likewise different tasks. However, to avoid the use of the term authenticity as a catch-all that can mean everything or nothing, the relationship with case studies can bring awareness about the broad palette of these values and how the theory and practice of heritage preservation are always intertwined. In the end, it is imperative to include in the extensive discussion about the preservation of authenticity the specific individual profile and the materiality of each particular example of cultural heritage as it has been handed on to us. In the concluding remarks of his essay “The cult of authenticity in the age of fake”, Wilfried Lipp calls for an upgrading of the substantial historic-authentic with all its intangible connotations, and in this context, he clearly defines the position of the involved experts: “Keeping in mind – once again – that all the fake, fiction and reproduction phenomena are based on the core idea of the true authentic of which preservationists and conservationists [i. e. conservator-restorers], also in future, should keep the key competence.” (Lipp, 2010, p. 275) Let us therefore embrace this task in our roles as preservationists and conservator-restorers in order to achieve, with our specific competences, a broader interdisciplinary and transdisciplinary cooperation!

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DEALING WITH AUTHENTICITY IN THE CONSERVATION AND RESTORATION [...]


"BEFORE WE UNDERSTAND WHAT WE ARE DOING, WE NEED TO KNOW HOW WE THINK"

JAKOBS Dörthe

Abstract: The article deals with an interesting debate following a project that started with the question raised by the press: “Why not overpaint or reconstruct the missing parts of a famous wall painting?” and concluded with a panel discussion that conveyed a better understanding of restoration theories on the part of both the press and the parish. Moreover, part of the project featured an exhibition to communicate the basis of our restoration theories and understanding, whilst requesting a dialogue with the priest and the parish; so, they might communicate their intentions and opportunely discuss theological interpretations with regard to the missing part in the wall-painting, which was important for us in reaching an understanding of the principles behind their ideas.

Keywords: Conservation theory, restoration theory, guiding principles in the field of conservation-restoration, Ulm, Pauluskirche, Adolf Hölzel, Wall painting, Wall painting technique

"Before we understand what we are doing, we need to know how we think"

Introduction

The evangelic church St. Paul (Fig. 1) in the southern German town, Ulm (Baden-Württemberg) was built by Theodor Fischer in 1910 as one of the first ferroconcrete (reinforced concrete) churches in Germany. At the same time the transverse rectangular choir was painted by the famous Stuttgart Academy Professor Adolf Hölzel (Fig. 2, 3). The creation of the niche with all its details and especially the Crucifixion is very important for Hölzel’s oeuvre: both for his

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1 The title is said to trace back to a slogan of Joseph Beuys: “Bevor wir wissen was wir tun, müssen wir wissen was wir denken”. For the reference I have to thank Werner Koch, Berlin, who sometimes starts his lecture to the students by this slogan. I also want to thank Stefanie and David Reling-Burns, Stuttgart and David Bibby, LAD, for proofreading the text.
theory of colours and the fact that it is the only wall painting created by the artist himself.²

Fig. 1 View from outside: The evangelic church, St. Paul, in the southern German town, Ulm (Baden-Württemberg), built by Theodor Fischer in 1910, as one of the first ferroconcrete (reinforced concrete) churches in Germany (Photo: Rose Hajdu, Stuttgart).

Fig. 2 View into the interior with the transverse rectangular choir in the east; painted by the famous Stuttgart Academy Professor, Adolf Hölzel (Photo: Picture Library Marburg).

Fig. 3 Detail of the rectangular choir with the niche painted by Adolf Hölzel in 1910, with many special irrecoverable details to keep in mind: background of the crucifixion with a pattern of symbols, painted triangle, altar rail, ambo on the right, niches for heating, painted pedestal and doors to connect the choir with the rooms of the parish behind (Photo: Julius Baum 1911).

Fig. 4 The niche with the painted crucifixion as it looks today after a “renovation” done in 1969-71. The wall surfaces with the now walled door and niches for the heating as well as the triangle and the pedestal – both important parts of the original concept - were completely overpainted in the today’s visible colouring of the backgrounds. The pattern-symbols as shown above were reconstructed on the blue painted background. The altar had been changed in his design and positioned more inside the room, the altar rail had been taken off and a sort of altar isle was created (Photo: Rose Hajdu, Stuttgart).

² The exhibition-project has been accompanied by a catalogue: Jakobs et al., 2017; see also: Jakobs & Lang, 2011.
Let me just highlight some details of the niche-design as an aid to help you in understanding the following pictures; that reveal the deep structural redesigns at the end of the 1960s (Fig. 4): The Crucifixion at the center of the niche, that looks like a monumental upper part of the altar or perhaps can be considered as an altar piece. The background pattern features symbols; such as, an anchor, an owl, a chalice, a pelican, a heart, a flower and a cock. Two doors formerly connected the niche with the rooms dedicated to the religious community situated to the rear; two more niches served for the heating. The altar in the middle was surrounded by an altar rail – and a most important detail for discussion, here: Hölzel created a triangle that ended on a painted pedestal. Looking at the Church in its current state leaves an impression absent of the many details that have been changed since the 1960s (Fig. 5). It just should be mentioned, that some of the transformations resulted from the II. Vatican synod 1962-1965; insofar as, for example, the positioning of the altar, and additionally, not least, changes resulting from the conversion of an original military church to a parish church.

Let us concentrate on the choir-niche with the Hölzel painting: The wall surfaces, with the present day walled up door and niches, as well as the triangle and the pedestal – both aspects being important parts of the original concept – were completely overpainted in a latex dispersion, constituting today’s visible colouring of the background. The pattern-symbols as shown above were reconstructed on the blue painted background. The altar design has been changed and positioned further inside the room, the rail has been removed and a sort of altar isle has been created.

Fig. 5 The present day look of the church: many details having been changed due to several renovations, occurring in the 1960s (Photo: Rose Hajdu, Stuttgart).

Fig. 6 Some impressions regarding different methods of analysis and photographs in different spectra to understand the colour theory and to detect the different pigments (Photos: Roland Lenz, ABK Stuttgart, Viola Lang, Ulm).
The beginning of a discussion

How do we handle a transformation that has so massively imposed on the artistic concept of architecture, equipment and design of the niche by Adolf Hölzel? What does it mean to put the clocks back and to “restore” to the state of 1910? This was the first idea of the priest and the parish at least concerning some important details of the painting (especially the triangle), because of its theological concept.

The discussion started in 2015, eight years after the completion of extensive research on the painting-technique by the restorer-student Viola Lang (Fig. 6) and seven years after the conservation of the status quo, which was finished in 2008. At that time, we didn’t even think about changing anything of the 1960s concept.

Of course, we had done extensive investigations and analysis at that time, so we knew a lot about the technique - boiling wax with alkali - to use it cold as a painting medium and not hot, like encaustic. Furthermore, we studied the colour-theory and tried to detect the colours by multispectral photographs, taken by Roland Lenz (see Fig. 6) But – all this very interesting information is outside of today’s topic, so I can only mention them in passing without going into further detail.

So back to the triangle: Before the execution of the paintings on the wall, Hölzel experimented with different preliminary drawings and oil sketches. We perceived, that he changed and developed both: the grade of abstraction and colour, and the texture of the triangle (Fig. 7).

Fig. 7 Different preliminary drawings and oil sketches that Hölzel experimented with before the execution of the paintings on the wall (Photos: Oleg Kuchar, Ulm; Roland Lenz, ABK Stuttgart).

Fig. 8 Comparing a schematic design with the photogrammetry of the present situation, showing that the doors and the niches were bricked up, plastered and overpainted (Schematic design: Viola Lang, Ulm; photogrammetry: LAD BW, FG Baudokumentation).
The congregation and the priest, of course, knew about the drawings and oil sketches, and about the conversion in the 1960s and made a request to the state office for preservation of monuments, us, in 2015, for permission to reconstruct some of the main missing parts of the Hölzel that had been overpainted in the 1960s. They especially wanted to get back “their triangle” which they considered to be indispensable for the theological meaning behind the Crucifixion. But comparing a schematic design with the photogrammetry of the present situation it shows the doors and the niches having been bricked up, plastered and overpainted (Fig. 8).

It is important to indicate, beside the very individual brush marks of the artist, that the triangle and the painted pedestal were not monochrome at all, but chatoyant as visible on the black-and-white photos (see Fig. 3).

A restorer has done a test and removed a square centimetre of the latex-dispersion. The test anticipated: it will not work. Even if it were “possible”, we’d never be able to take off the overpainting, because then – we would destroy a complete 1960s concept of architecture, equipment and design of the niche. So, what do we do with the request by the community to reconstruct something that we can’t possibly envisage, without, that is, creating a situation that never existed? – as shown here in the digital montage (Fig. 9)

Fig. 9 Digital montage to show the “first idea” of a “reconstruction” of the triangle and the painted pedestal (Photo: Rose Hajdu, Stuttgart; digital montage: Iris Geiger Mesmer, LAD BW).

The question of how we deal with our cultural heritage is internationally, widely debated and theorized over, regarding the justification and form of additions in painting, sculpture and architecture.
Conservation-restoration theories

"What can I do, what can I not do, what should I do?" (Janis, 2005, p. 7) – Conservation-restoration theories, principles, fundamentals for a methodical approach serve as a compass for restorers with regard to the question of how one should act and are thus, the basis for a normative ethic in conservation-restoration. The conservation-restoration theories claim a certain liability. The theoretical bases are reference systems; they serve as a support for justifications; they are instruments for the performance of our tasks – but they do not free us from self-responsible evaluation and action.

The conservation-restoration ethics developed since the 1980s with the occupational image of the conservator-restorer and a simultaneously adopted "code of ethics". At the time, translations of this “code of honour” initialized by the Canadian Group of IIC were processed worldwide, Germany being included (Goetz & Weyer, 2002, p. 70).

Certain requirements run like a common thread through the centuries. Where John Ruskin 1849 emphasizes the value of the historical in its "original", shaped by the artist himself and passed through time as the only historical and aesthetic truth, his successors refer even more clearly to the lifetime of the work of art in their reflections, with recognition of the historical stages as part of their testimony value. I can’t go into all the conservation-restoration theories here, but one might mention Camillo Boito, Georg Dehio, Alois Riegl, and of course one of the most important representatives, Cesare Brandi (Brandi, 1963, 1977). His “Teoria del restauro”, published in 1963 considers the work of art and the cultural monument not only from the aspect of historicity, but also takes into account aesthetic aspects. And of course, everybody in Florence knows Umberto Baldini and his “Teoria del restauro e unità di metodologia” from 1978/1981 (Baldini, 1978; Baldini, 1981). Recent ideas like the “Contemporary Theory of Conservation” by Salvador Muñoz Viñaz focus more on the society, as experts are invited to discuss their knowledge with society (Muñoz Viñaz, 2005).

Referring to the Crucifixion by Adolf Hölzel, this means, we cannot escape a hundred years of theoretical discussion. Conservation-restoration ethics is called upon, to provide this superstructure of the principles of action, and is necessarily incorporated into the process of decision making. Of course, each conservation-restoration always remains bound to its time and its place and the cultural and intellectual understanding of those responsible. And so, each conservator-restorer has, beside his or her individual responsibility, a duty to convey and employ an understanding of the importance of the theories.

An exhibition project as base of a decision-making process

So being convinced that all conservation theories are still valid for the 21st century, there is

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no necessity to ignore them, but maybe from case to case to specify them with regard to the individual request. But beside our responsibility, and that of today’s interdisciplinary team’s, we have to grasp cultural heritage in the interdisciplinary discourse in all its aspects, and to communicate the principles and theories in a society, in order to make the decision-making process comprehensible.

That is exactly what we aimed to do with an exhibition that included a catalogue; instead of physically laying our hands on the niche or the Crucifixion: we decided to involve all actors and engage them in the organisation of two exhibitions; one about Adolf Hölzel in the Museum of Ulm, where we had the opportunity to show all original drawings and oil sketches (see Fig. 7); and, another exhibition in the church, with extensive documentation to communicate all aspects under consideration – under the motto of: "Before we understand what we are doing, we need to know how we think".

So, we tried to communicate the basis of our understanding, but we also asked the priest and the parish to communicate their intentions and, for example, to expand upon the theological meaning of the triangle. The exhibition (Fig. 10-11) started with the building-history and the conversion in the 1960s (also analysing the intention of the architect). We then discussed the history of monument care; beginning with the theories of John Ruskin and finishing with the Venice Charter (The Venice Charter, 1964). Another important part dealt with theories of conservation-restoration and the Ethics behind conservation-restoration – featuring: Boito, Brandi, Baldini, Muñoz Viñaz and others; comparing the special subject of the Crucifixion with existing theories and discussing solutions. Looking at both: the preliminary studies and the significance of the door; and the theological importance of the triangle. The multispectral photos to identify pigments were important for the research, too, regarding the colours used by Hölzel and the technique behind the wall painting.

We ended the two exhibitions with a panel discussion with the parish, the priest and the public. It was very interesting to observe, that the older people of the parish, who had been praying in front of the Crucifixion before its transformation, remembered the triangle: each one recollecting the triangle however as having a different colour! The most important experience for us was to see an increased level of understanding by the parishioners for the arguments about restoration theories. And for the parishioners the very lively debate had brought to the fore, the importance of the crucifixion and the artist at the heart of the community. For us, of course, the whole project had shown the importance of an active exchange, that also respects the way a parish identifies with an art-work that they look at every day.

To keep this raised awareness alive, we proposed supporting the church by working on a multimedia presentation. This, on the one hand, could present all the information via tablet, and on the other hand, create a multimedia reconstruction of the original in the form of film or photos, respectively. So at least the community had understood that conservator-restorers are duty bound, to an ongoing discussion (over one hundred years on) regarding conservation-restoration theories, and, therefore, cannot simply deny the past to create a present or future.
Geschichte der Denkmalpflege

Denkmäler als bauliche und/oder künstlerische Zeugnisse vergangener Zeiten und Kulturen zu erhalten, sei es wohlwollend ihrer Substanz zu sichern und möglichst unverfälscht an nachfolgende Generationen weiterzugeben, ist die wesentliche Aufgabe der Denkmalpflege.

Restaurierungstheorien - Restaurierungsethik

Was darf ich, was darf ich nicht, was soll ich tun? "Restaurierungstheorien", Praxishinweise, Grundlagen für die methodisch-hermeneutische Restaurierung. Hierzu finden sich auszugsweise Kompass für Restauratoren. Im Hinblick auf die Frage, wie man handeln sollte und soll, bemüht man sich um eine normative Ethik der Restaurierung. Die theorethischen Grundlagen sind Bezugssysteme, sie dienen als Stütze für Begründungen, es sind Instrumente zur Selbstbestimmung unserer Aufgaben, aber sie erheben uns nicht auf eine eigenverantwortliche Bewusstheit und Handlungsweise.


Dennoch haben sich bis heute die Regelungen mit immer neuen Abgrenzungen und Präzisierungen durch alle Jahrhunderte. In Deutschland (1905) gilt als Ausgangspunkt der Geschichte der Denkmalpflege das interdisziplinäre Miteinander mit der "angreifbar"en und dem "Händler" gestalteten sowie durch die Zeit begrenzten, nicht aber verbindlichen, dem vorbildlichen Verhalten und dem künstlerischen Handeln Verpflichtungen. In der Restaurierungsgeschichte und auch als Entwicklung "so viel wie nötig, so wenig wie möglich" und der "minimalen Eingriffe" zugrunde.


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UNITÉ DE DOCTRINE – CONTINGENCY OF PRACTICE?
TOWARDS A RE-READING OF TWENTIETH CENTURY PRINCIPLES
OF BUILDING HERITAGE CONSERVATION

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Abstract: The theoretical framework of building heritage conservation is not necessarily a predefined set of tenets and axioms with potentially universal significance, but a result of particular challenges and practices bound in time and place. In this article, the guidelines of building heritage conservation in Switzerland in the last century are outlined briefly with reference to the broader European theoretical discourse. Focusing on the contradictions between the theoretical position and practical work of Linus Birchler, it argues for the necessity to re-read and assess our principles of building heritage conservation in relation to the specific built cases they originated from.

Keywords: Building heritage conservation, architectural restoration, conservation guidelines, Switzerland, 20th century

Introduction

Within the war-torn, fractured historic landscape of twentieth century Europe, multilingual and multicultural Switzerland appears as an island of continuity and tedious consonance, at least in regard to the history of preservation of historical monuments. Without external disturbances, the practice of building heritage conservation in Switzerland developed under a persisting “unité de doctrine”. At least, such continuity of basic principles has been claimed repeatedly – and expressed prominently again by then President of the Swiss Confederation Pascal Couchepin in 2007 (Caviezel, 2017, p. 201). Evoking consistent professional accord in regard to the preservation of cultural heritage, in its original understanding the phrase reaffirmed the

Though this article deals with architectural restoration in the middle of last century, the term building heritage conservation is used to denote the field and its purpose in general, as an equivalent to the German term Baudenkmalpflege. The contemporary guidelines referred to do not necessarily distinguish between the care and preservation of architectural monuments and works of art, that is between building heritage conservation, conservation-restoration and the preservation of cultural heritage in general, Denkmalpflege.
continuous succession of teacher-student relationships from Johann Rudolf Rahn (1841-1912) to Josef Zemp (1869-1942) to Linus Birchler (1893-1967), the decisive president of the Swiss Federal Commission for Monument Preservation from 1942 to 1963, who can be attributed to have coined the phrase (Birchler, 1964, p. 115). Following Birchler as president of the aforementioned commission and as professor at ETH Zurich respectively, Alfred A. Schmid (1920-2004) and Albert Knoepfli (1909-2002) both secured the lasting influence and alleged continuity of the “doctrine” in the second half of last century.

In its introduction, the current *Guidelines for the preservation of built heritage in Switzerland* (EKD, 2007) again refer to Rahn, Zemp and Birchler and a by now canonical list of three preceding guidelines associated with them, which will be introduced successively in the first part of this article. Effective for the remaining of the century, Birchler’s guideline especially shows no immediate discrepancy to the principles of the Venice Charter of 1964. However, its actual meaning can only be assessed in regard to his practice of restoration, which will be outlined by three significant cases chosen by Birchler himself to exemplify his position.

The canon of the Swiss guidelines of building heritage conservation

Edited by the Swiss Society for the Preservation of Historic Monuments (Schweizerische Gesellschaft für die Erhaltung historischer Kunstdenkmäler) in 1893, the so-called *Anleitung zur Erhaltung von Baudenkmälern und zu ihrer Wiederherstellung* is the first publication of principles of building heritage conservation in Switzerland of significance (Fig. 1).

In 1886, the newly created Swiss Federal Commission responsible for the acquisition and conservation of historic monuments had been created out of the board of this private society. Five years later, with the establishment of the Swiss national museum (the Schweizer Landesmuseum in Zurich), the same board was in danger of losing this function and the accompanying official privileges (Wassmer, [1964], p. 5). Though the responsibility for acquisitions of works of art could not be retained, the board was able to remain officially in charge of recommending federal contributions to architectural restoration from 1892 onwards (Erhaltungsgesellschaft, 1892, p. 2). Obviously, the purpose of publishing guidelines a year later was more about publicly asserting the society’s expertise and justifying its official position then about offering practical advice. Attributed to Rahn in the current *Guidelines* (EKD, 2007), the publication of the *Anleitung* was actually strongly influenced by architect Heinrich von Geymüller (1839-1909) (Knoepfli, 1972; Haupt, 2014, p. 62).

However, these first Swiss guidelines on building heritage conservation were not directly based on the actual practice of those who issued them. Basically, the *Anleitung* was a slightly adapted German translation of two interrelated guidelines by the Royal Institute of British Architects, the 1888 reviewed edition of the *General Advice to Promoters of the Restoration of Ancient Buildings and Hints to Workmen engaged on such Restorations and Repairs*.²

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The original edition of both separate documents on *Conservation of Ancient Monuments and Remains* had been published in 1865. Initiated some years before by Sir Georg Gilbert Scott (1811-1878), the RIBA guidelines basically summed up his own practical experiences. In turn, the document was a late answer of the professional architects to the pamphlets of the Cambridge Camden Society from the early 1840s, namely *A few words to Church Builders* (1841) and *A few words to Churchwardens* (1842) (Scott, 1862, p. 93). These pamphlets had been enormously influential in early neo-gothic church restoration movement in Britain (Brandwood, 2000, pp. 54-55) before being replaced gradually by Scott’s more “faithful” approach (Scott, 1850). The RIBA’s Advice even mirrored the double addressing, later to be copied in the Swiss translation without further motivation.

As is well known, the RIBA’s original Advice became the object of critical assessment by Scott’s former apprentice John James Stevenson (1831-1908) in 1877 (Stevenson, 1877), acting on behalf of the newly established Society for the Protection of Ancient Monuments (Tschudi Madsen, 1976). The reviewed edition of 1888 used by the Swiss preservationists had just altered the criticised points (Putz, 2015, pp. 181-183; A6-A21). Though the SPAB itself would publish its *Notes on the Repair of Ancient Buildings* not before 1903, thus, ironically, the first Swiss guidelines on building heritage conservation with an official significance were based on a document already considered outdated by the discipline’s more progressive protagonists.

Fig. 1 Erhaltungsgesellschaft, Schweizerische Gesellschaft für die Erhaltung historischer Kunstdenkmäler (Ed.). (1893). *Anleitung zur Erhaltung von Baudenkmälern und zu ihrer Wiederherstellung*. Zürich: F. Schulthess.
Yet the Swiss discussion was far from detached from the evolving international field of building heritage conservation. In *Das Restaurieren* Josef Zemp made a noteworthy contribution to the fundamental German discussion at the turn of last century. In his article, published in three slightly different versions in 1907 and 1908 (Zemp, 1907a; 1907b; 1909), Zemp reflected on the current and future practice of architectural restoration, the aim of heritage conservation and the ongoing transformation of the profession of architecture (Fig. 2).

In his considerations, Zemp strongly followed the arguments and positions of Cornelius Gurlitt (1850-1938) in *Vom Restauriren* (1903), re-published in 1904 in the book *Über Baukunst*, a copy of which had been forwarded to Zemp by Gurlitt. According to the exchange of letters between the two,³ Zemp especially found reassurance in the following line:

> „Grundregel aller Erneuerung sollte sein, dass sie keine Täuschung über das Alter erneuerter Teile herbeiführt, dass aber alles das, was neu gemacht werden muss, um das übrige Alte zu erhalten, auch als neu erscheine.“⁴ (Gurlitt, 1904, p. 18)

This modernist principle of building heritage conservation reflects a different perspective to Georg Dehio’s well-known “konservieren, nicht restaurieren”. Though consistent in their repudiation of typical nineteenth century restoration, stylistic purification and historicistic reconstruction; the art historian Dehio considered conservation as a task for artistically and technically trained archaeologists (Dehio, 1905, p. 24), whereas the architect Gurlitt (and subsequently Zemp) upheld the cautious and scientifically hedged artist and architect. It is for this reason he opted for a domain of contemporary design (*Gestaltung*) within the care of historic monuments, especially in additions.

It was not before a reprint in 1947 that Zemp’s article became highly influential within the Swiss discussion. Zemp’s concise parole “Das Alte erhalten, das Neue gestalten” / “Conserver l’ancien, adapter le nouveau” (Zemp, 1907a, p. 258) has been cited countlessly since. Yet the scope and responsibility of such *Gestaltung* of the historic artefact was now to be redefined by the art historian Linus Birchler.

Birchler’s contribution to the Swiss guidelines of building heritage conservation, a list of twelve principles to be applied by the Federal Commission first outlined in his *Restaurierungspraxis und Kunsterbe in der Schweiz* (1948), was the most influential and enduring, being valid officially for about half a century (Fig. 3).

After the war, Birchler had visited Poland, France, Italy, and Germany; and knowing form first-hand experience about the enormous reconstruction efforts he did not want his country to stay behind. Published just at the beginning of the nation’s post-war economic upswing, the little brochure’s main aim was to secure more and enlarged funding for cultural heritage preservation in general. It was actually sent by Birchler to every member of the national

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³ Letter from Josef Zemp to Cornelius Gurlitt, January 8 1904, (Brief 104/001, Nachlass Cornelius Gurlitt, Universitätsarchiv der TU Dresden).

⁴ “As a general rule, renovation work must not deceive the true age of renewed parts; instead, everything which has to be made anew to preserve the remainder should also appear as new.” (transl. by Author).
assembly, and in the mid 1950’s he finally succeeded. Thanks to Birchler, the preservation of cultural heritage truly became considered a national obligation.

Fig. 2 Zemp, J. (1908). *Das Restaurieren*. (Dürerbund, Flugschriften zur ästhetischen Kultur 40), München: Callwey.

Fig. 3 Birchler, L. (1948). *Restaurierungspraxis und Kunsterbe in der Schweiz*. Zürich: Polygraphischer Verlag.

Again, the list of principles was based on a template. In 1930, Birchler’s predecessor as president of the Federal Commission, Albert Naef (1862-1936) had outlined a sober list of measures of building conservation for which federal subsidies could be assigned. Naef’s internal Rapport relative à l’allocation des subventions fédérales pour travaux des conservation clearly reflected the economic depression of the early 1930s in aiming to secure at least funding for basic conservation. In fourteen articles he restricted the care for ancient buildings to core principles of repair and substantial conservation work. 

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5 Naef, though not mentioned in the guidelines of 2007, is not omitted from the history of preservation in Switzerland altogether, but he certainly was not referred to much often by Birchler. Famous for his work at Chillon and Romanmontier, Naef of course was a French speaking Swiss, a protestant, and an architect (unlike Rahn, Zemp and Birchler).

6 Naef, Albert: Rapport relatif à l’allocation des subvention fédérales pour travaux de conservation de monuments historiques, pour leur exploration archéologique, pour des fouilles et des relevés, letter addressed at the Federal Department of the Interior (EDI), Lausanne December 17, 1930. A copy of the letter (and a German translation) was sent to every member of the Federal Commission for Monument Preservation in 1948 before the composition of Birchler’s new guidelines, one remained in the estate of A. H. Steiner at gta Archiv, ETH Zürich.
In regard to the restrictions of Naef’s *Rapport*, Birchler’s principles re-defined building heritage conservation in times of post-war prosperity. His principles successfully initiated the expansion of the preservation of building heritage, yet coherently, the scope of construction work considered appropriate expanded as well, as will be shown. Additionally, Birchler’s list of principles was far from fixed. Originally outlined in twelve points, in successive lectures he only mentioned eleven or ten, depending on audience. In 1957, at the “Congrès International des Architectes et Techniciens des Monuments Historiques” in Paris, the first post-war international conference on building heritage conservation and the predecessor of the “IIe Congrès International de la Restauration” in Venice 1964, Birchler in effect presented fourteen principles, of which only eleven were identical with the original (Birchler, 1957b).

Generally, the principles outlined by Birchler (Birchler, 1948, pp. 14-19; Birchler, 1957b, pp. 101-104) are in accordance with contemporary conservation theory. He negated the possibility of absolute standards in building heritage conservation, every case has to be regarded individually. He considered every historic period of art valuable; and as restorers must not engage in stylistic reconstruction, modern additions must not imitate historic forms. He asked for the personality of the involved architect to be restrained and no modern building materials to be used in historic fabrics. Quoting Josef Zemp (“Der Bau restauriert sich im Grunde selber.” / “Le bâtiment se restaure lui-même.”), he seemingly recommended thorough building surveys and analysis before intervention (Birchler, 1948, p. 15; Birchler, 1957b, p. 101). And quoting Naef (“Tous les relevés sont faux.”), he pointed not only to the inconsistencies of historic planning documents, but to the difference of two dimensional representation and three dimensional reality (Birchler, 1957b, p. 103).

For the Swiss conservation experts attending the conference in Venice, the declaration of 1964 was no reason to question their general practice (Schmid, 1993). In their essential points, the Swiss guiding principles by Birchler of 1948 and 1957 and the Charter of Venice showed no discrepancy. In several major parts, like the differentiation of reconstruction, anastylosis, renovation, restoration and conservation (Birchler, 1948, p. 7; Birchler, 1957b, p. 101), Birchler’s text even foreshadowed the Charter of Venice.

**Three church restorations by Linus Birchler**

To assess Birchler’s principles in a historic perspective, one has to relate them to actual practice. Though the principles can still be considered in accordance with most of today’s conservation ethics, his practice of restoration defies them. The cited examples are telling, as the extensive transformation of the monuments was not, as often criticised, intended by the responsible architect, but requested by the art historian and preservationist.

The restoration of the catholic town church of Baden 1936/37 was one of the first projects Birchler became involved with as member of the Federal Commission.7 In the early 1930s,

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7 Birchler was appointed member of the Federal Commission in 1930 and became engaged as an official federal expert on behalf of the Commission’s president. In 1936, he became vice-president and from 1942 till 1963 he acted as its president.
the church still had its neo-gothic decorum. The architect’s original project had only planned for a repair of plaster and restoration of derelict stone jambs of the entrance portal. However, the churchwardens applied for federal funds. According to the recommendations of the acting federal expert, Birchler, the complete façade of the historic monument was purified to its current state, enlarging building costs and making additional new parts like a porch necessary (Kuonen Ackermann, 2002; Putz, 2015, pp. 189-192). The destruction of the neo-gothic façade resulted in the need of a new design for the stone jambs of the main portal. Accidentally, older jambs were found during demolition, luckily similar to the ones already designed by Birchler. As Birchler confirmed in a later recollection, the project in Baden in particular informed his principles of building heritage conservation (Birchler, 1948, pp. 19-20; Birchler, 1960, p. 341). Twenty-three years later, obviously indifferent to his own inconsistencies, he defended his early work as aiming at the original appearance and creating historic authenticity. “Unser Bestreben ging überall auf möglichst getreue Wiederherstellung des alten Bestandes, ...” (Birchler, 1960, p. 348) (Fig. 4).

Fig. 4 The catholic town church of Baden, façade after restoration by Linus Birchler in 1936/37 (reprinted from Birchler, 1960, p. 344).

Just around the Paris conference of 1957, Birchler became heavily involved in two other church restorations. Despite the original differences both churches became strikingly similar in their interior appearance.

The Augustinerkirche in Zurich was the former church of one of the city’s medieval monasteries which had been reworked in 1843 in a neo-gothic fashion by Ferdinand Stadler

8 “Everywhere, we aimed at the most accurate reconstruction of the old entity, ...“ (transl. by Author).
(1813-1870). Its restoration by architect Max Kopp (1891-1984) under the guidance of Linus Birchler from 1957 to 1959 followed earlier repair work in 1936/37 (Abegg & Wiener, 1999). As in Baden, the original plans of the architect were rather limited in scope, but after federal funds were requested for the restoration, Birchler became involved. In an statement just after his first short visit to the building, he asked for the demolition of the interior neo-gothic plaster vaults and the introduction of a simple flat wooden ceiling. Without proper survey and planning, the new ceiling happened to cut into the large window at the church’s entrance façade, which after thorough discussion became remodelled as well (Putz, 2015, pp. 214-226).

In 1957 Birchler was also involved in the restoration of the little parish church in Bütschwil. This church had been built in 1886 according to a neo-romanesque design by local architect August Hardegger (1858-1927) and was considered of little historic or aesthetic value. In this project, Birchler was involved privately and not in his capacity as president of the Federal Commission. Free from public obligations, he considered the little church a testing ground for his method of restoration design. As in the Augustinerkirche project, Birchler opted for a sober interior and a flat wooden ceiling (Birchler, 1957a).

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The request was stated in a letter to Heinrich Peter, who Birchler asked to act as his local expert for the project. Letter from L. Birchler to H. Peter, April 17, 1957, Schriftverkehr Augustinerkirche Zürich (EAD - EKD - 1841, 756), EAD, Graphische Sammlung der Nationalbibliothek Bern.

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Fig. 5 Augustinerkirche in Zurich, interior before and after restoration under the guidance of Linus Birchler in 1958/59 (reprinted from [Kopp], 1960, p. 598).
Conclusion

The objective of the rising number of charters and principles for the preservation of cultural heritage in the twentieth century was to articulate and impose basic standards and a common code of ethics, both on international and national level. Accordingly, these documents are often considered as visionary provisions and mainly discussed in regard to their prospective influence. From a different perspective, the guidelines constitute historic documents reflecting in retrospect experiences gained in past restorations and generalizing gained insights and experiences in dealing with particular objects. Thus, the theoretical framework of building heritage conservation is not necessarily a predefined set of tenets and axioms with potentially universal significance, but a result of particular challenges and practices bound in time and place (c.f. Schmid, 1993).

As in regard to the Charter of Venice, one can hardly find a sentence in Birchler’s principles in opposition to our current conservation ethics. Yet the supposed lasting validity of this theoretical foundation of conservation theory is questionable in regard to the actual practice at that time, which will hardly find our consent. The longevity of the principles in spite of changing attitudes was not the result of lacking interest in theoretical reflection, but of the original text’s vagueness in regard to concrete practical challenges. The guidelines could and have accommodated a wide range of different and contradictory approaches.

In retrospect, the dominant practice in Swiss building heritage conservation at the middle of last century could neither accommodate the historic imitation, nor the fragmented, the opaque, or the simultaneity of temporal layers. The “unite de doctrine” demanded “objectivity” in regard to the historic artefacts, meaning the absence of any personal style or preference by the architect, and the comprehensibility and accordance of historic sources. The so-called “schöpferische Denkmalpflege” – both the historicist and modernist creative approach in remodelling the remains of the past – was strongly opposed by Birchler. He and his likeminded group of experts favoured a holistic approach of cautious, impersonal design, so-called “gestaltende Denkmalpflege”, as means to authorize a future for the past (Putz, 2015, pp. 224-226). Birchler opted for a popularization of cultural heritage. To be acceptable
and understandable to the general public, the artefacts must not show too many layers and contradictions (Birchler, 1954, 39).

Today, the alterations and transformations made within the historic fabric at the middle of last century result in manifold problems for preservation. New materials, composites and synthetics, prefabricated building elements and surrogates of all sorts can be found in monuments both new and old. But it is in regard to conservation theory the doings of our predecessors pose even bigger challenges. Indeed, in their current state, the aforementioned churches less represent the 12th, 15th or 19th century respectively, but authentic models of mid-20th century art history. They stand for the specific understanding this period had regarding the true and original image and design intent of the respective objects. Identifying and assessing the deficiencies and sacrifices of past restorations must yet not result in a reduction of listed monuments. Rather, it is only through critical reflection of past practices we in fact establish the works of old as our heritage.
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“CONSERVATION VERSUS RECONSTRUCTION.”

DO WE NEED OTHER OR NEW CRITERIA FOR CONSERVING ARCHITECTURAL SURFACES OF THE 20TH CENTURY?

DANZL Thomas

Abstract: Until today, in most European countries there is no juridical definition or legal recognition of the profession of the conservator-restorer. This fact means an almost complete lack of specific regulations anticipating conservation-restoration activities and stipulating the quality of these activities. The absolute need for qualified professionals, for a legal status, for an evaluation of the dynamics in a conservation–restoration project and finally for an analysis of the essential methodological steps of the conservation project require evidence of professional responsibility, competence and qualification. At the very beginning of the conservation of 20th century architecture, the professional figure of the architect wasn’t discussed in his historically grown leading position. The task of the conservator-restorer and of the conservation sciences at that time was to take part in a planning process that often started with a “reconstruction concept” for regaining the lost “original” design of the architecture. It seemed to be more important to reconstruct “ideas” than to follow the traces of the authentic materials, and to document and conserve them. Often this was justified with the alleged “special status” of modern architecture which was supposed to be too fragile and too ephemeral to be conserved in the same way as other historical monuments. This article wants to illustrate that effective “project management” based on a shared and transparent theoretical fundament is able to bring about a conciliation of the apparently diametrically opposed opinions and concepts of “Conservation” and “Reconstruction”.

Keywords: 20th century architecture; conservation and restoration of architectural surfaces; modern building materials

1 Intentionally the author cites one of his papers published in 1999, which at the time started a still ongoing discussion reflected here. See: Danzl, 1999.
The ICOMOS conference in Florence in 2018 titled Conservation Ethics Today: are our Conservation-Restoration Theories and Practice Ready for the 21\textsuperscript{st} Century? as part of numerous initiatives on the occasion of the European Year of Cultural Heritage (EYCH) 2018 was without doubt of particular intellectual interest for various actors in the audience concerned with the everyday practice of conserving our architectural heritage. Just starting with the conference title, one could ask whether the 21\textsuperscript{st} century used as a temporal parameter in the posed question was per se appropriate and useful to describe and evaluate our contemporary dilemmas in order to be prepared for the professional tasks of only the coming decennia. Considering the already perceivable impressive consequences of the Third Industrial Revolution for daily life, the consequences for our profession are still less predictable. For sure, the targeted 21\textsuperscript{st} century describes an uncertain and long future - more than the usual life expectancy - so it should be understood as a metaphor for an unknown task to be coped with using the best means in theory and practice. This metaphor is not absolute and therefore without doubt there will be no proper solution or answer to the question posed here.

Instead - as a consequence - the argument proposed in this paper should be based more on experience of the recent past but hopefully avoiding apparently too easy solutions of the reigning zeitgeist. Time isn’t absolute, it is relative and so are our theories and practices as well as the value system of a society and its oscillating prospect of evaluation in time and places. However, relativity doesn’t mean (cultural) relativism that could offer cheap excuses for deficits in our thinking and acting. For that reason, professional standards are to be considered the distilled knowledge of a community of experts. They represent an agreed and reliable way of acting for a certain period of time – until innovations outnumber the existing standards. It is to be considered a slow but variegated and discontinuous process. Conservators-restorers know only one given standard which is a categorical imperative: conserving and maintaining the material existence of artefacts and architecture for future generations. If this \textit{conditio sine qua non} is omitted, the profession of the conservator-restorer is futile. But who can be defined as conservator-restorer? The craftsman experienced in traditional techniques, the academic conservator-restorer, the art historian, the architect, the civil engineer, etc.? In recent times – for good reason - inter-, multi- and transdisciplinary approaches have also started to prevail in conservation politics. Nowadays, effective heritage conservation institutions assign to each involved professional a certain significant role in a participatory decision-making process, based on internal relationships, shared values, adaptive system and ongoing dialogue. Shared decision-making finally involves not only experts but also the interested public or private stakeholders and brings together diverse opinions and expertise in a holistic approach.

\textbf{Attempt of an answer to the question in the title}

Indeed, the above assumed categorical imperative for conservators-restorers could already
answer this rhetorical question from a Central European perspective: we don’t need any new criteria for the conservation of architectural surfaces of 20th century monuments! However, the argument appears to be far more complex than the mere act of doing conservation-restoration: a benevolent and democratic socio-political and cultural-economic environment is a minimum requirement. Shortly before the start of the second decennium both pillars seem to have started to totter. For good reason, right after the reunification of the two formerly divided German states vivid and often controversial theoretical discussions were already centered on the then existing and desirable standards of conservation-restoration and - above all - on the crucial question of reconstructing lost heritage of World War II. After the armed European conflicts of the 1990s and after the traumatic experience of worldwide terrorism intentionally inflicting irreparable damage on artistic and architectural heritage, the debate on virtual or real reconstruction, on copies, replicas and fakes is celebrating a great comeback (See: Hassler & Nerdinger, 2008; Hillmann, 2008; Habich, 2010; Nerdinger, 2010). In order to emphasise the above given statement, it is necessary to briefly summarise the “state of the art of conservation-restoration” in the international discussion, as it has evolved since the European Architectural Heritage Year of 1975 (ICOMOS Austria, 2015).

As is well known, the motto for the EAHY 1975 was A future for our past and promoted among other didactic ambitions the academic and professional education of conservators-restorers, especially for the working field of architectural conservation-restoration. Auxiliary means were the establishment of appropriate building material archives, the safeguard of conservation-restoration-related findings, and the experimental material-based reproduction of historical production and working methods as art techniques and materials. Finally, conservation sciences gained increasing importance not only as an auxiliary discipline in heritage conservation institutions, but as an important and highly specialised field of research in the conservation-restoration of traditional and modern building materials. Common to all contemporary codes of ethics in conservation is the topic of a “treatment that should be carried out to the minimum extent necessary”. María Rubio Redondo asked about the meaning of “what is necessary” and answered: “conservation should provide balanced solutions in response to the necessities of the individual work of art” (Rubio Redondo, 2008). Salvador Műnoz Viñaz was very conscious of the continuous minimal loss of potential meanings and of the objective fact of inevitable degradation that leads in the end to the total loss of any work of art, when he stated that the concept of “minimal intervention” should be replaced by the concept of “balanced meaning loss” (Műnoz Viñaz, [2005] 2009). This is decisively aided by the special development of layers that could protect from wear and tear: so-called “buffer”, “protection” or “sacrificial” layers, which are compatible with the precepts and demands of the monument’s protection. They are thought to have the capacity to protect the original surfaces and may also be applied to a materially identical reconstruction of the same surfaces (Danzl, 2004; Danzl, 2006; Danzl, 2008/1; Danzl, 2008/2; Danzl, 2012). The concepts of minimum intervention or “balanced meaning loss” as the possibly most extensive conservation method of preserving the authenticity of a monument’s materiality are the primary objective that surely should be followed without dogma. Even the preservation of
invisible layers and materials as part of a newly interpreted structure follows the concept of sustainability: Not everything that is discovered must be revealed. Not everything that is revealed must remain visible. The reconstruction of lost states or design issues in the life of a monument is – still? - not a priority of the heritage conservation. In this perspective, building archaeology, material science together with conservation sciences offer the essential contributions to the practical conservation of the monument as well as to the inventory. It is important to underline that conservation-restoration and reconstruction are not stages of a linear evolution in the critical evaluation of the monument; instead, they involve a dialogic interaction. These three methodological areas have defined since the early 20th century the poles that describe a tension of the monument, which will be constantly re-evaluated based on the individual case of the monument and its balanced needs. The monument conceived aesthetically as an "image" which describes itself or is also conceived as an "image" that one makes of it is without doubt time-bound. Only in understanding the “language” of the material substance one succeeds in redeeming these antipodes.

It is quite obvious that our professional profile and ethics that are linked to “the materials” to be conserved were strongly supported for nearly 43 years by respective international institutions, theories, charters and codes of ethics, and last but not least by the general public. But very slowly, this support is vanishing also among the ICOMOS community. Some colleagues (Scheurmann, 2018) think that this is happening under the influence of the Burra Charta revised in 2013, but it is a real paradigm change – a sign of our time. The society-founded "roll-back" in the new millennium – away from a “value” and “substance”-oriented definition of monuments to an "image"-oriented one - seems to be, at least in Germany, the new consensus and a paradigm shift the implication. But conservators-restorers, conservation scientists and building archaeologists are committed in the first place to the historic substance and to the evolving or converted aesthetical appearance linked to it. Personally speaking, it happened to me in 2010 during a social evening event at an ICOMOS conference that I organised in Quedlinburg / Saxony-Anhalt: a colleague well-known worldwide confronted us with his spontaneous comment regarding the conservator-restorer’s sole right to exist, which should be “prolonging the lifetime of material relics”. His comment was: F*** the artefact!

Highly sensitive colleagues were not so much shocked because of the drastic expression but because of the underlying bitter truth. Nearly seven years later and after two years of experiencing a new American (but not only American!) way of defining “truth” which forms a precedent, one can understand better this drastic, maybe sarcastic comment.

Have conservators-restorers – who are finally at the height of their academic and professional evolution – become an endangered species? Will their natural habitat be soon destroyed by a quickly changing world of “Big DATA” and “Virtual Realities” and “Fake News”? At the moment, our profession suffers on the one hand from a difficult but still classical momentum of financial crisis, from a lack of political and public support, and from a less enthusiastic image among young people. On the other hand, the development of new relativistic theories considers this professional figure less indispensable than in the past.
If you like, “materiality” is “old school”, while “virtual reality” is the future. Together with the tasks of infotainment, storytelling, re-enactment, reconstruction, the creation of icons, etc., virtual reality is without doubt the new hype in conservation sciences and practice: digital inventories, documentations, hypothetic reconstructions, etc. have to have their legitimate function, but for some scholars this happens at the expense of the actually existing monuments. Especially architecture of the second half of the 20th century is endangered, because the quantity of this heritage is indeed immense – not only in Germany. While economic pressure and the often gigantic dimension of these buildings offer an easy pretext for heavy transformations or even total destruction and subsequent interpretation through so-called replicas, the scientific inventory or research on the original construction materials and their long-term behaviour have not yet really begun. Instead, the debate continues as to whether the design, the materials used or the construction techniques place these buildings outside the scope of normal conservation principles. In this regard, some monument conservation authorities postulate to give up the European tradition of “substance” in favour of the reproduction of the “idea” and the “iconic appearance” of these monuments. Arguments against their material preservation mostly repeat the common prejudices against monuments of the Modern Movement, which in the meantime have proven to be false, as for example: The use of experimental materials which won’t last and were never thought to last over time; furthermore, thermal and acoustic insulation deficits are too difficult and too expensive to improve. For sure specific management and practical issues come up, but why shouldn’t conservators-restorers be able to cope with them? What a good thing that the young generation has discovered in certain social network platforms the so-called “Ostmoderne” (or “Eastern Modernism”) and the “Brutalism” in the architecture of the 1960s and 70s as a valuable aesthetic movement to be preserved materially (Danzl, 2016). The hashtag SOS Brutalism, a database supported by the Wüstenrot Foundation and the DAM (Deutsches Architektur Museum) has more than 50,000 followers! (SOS, 2017) Also, the ICOMOS International Scientific Committee on 20th Century Heritage (ICOMOS 2017) focuses its efforts on buildings which are most at risk through lack of recognition and protection. This committee actively uses social media platforms for discussion and exchange of information and conservation initiatives. In 2014, the committee published the international standard “Approaches for the Conservation of the Twentieth Century Architectural Heritage“ that is also known as the Madrid Document, which is currently being extended to include urban areas and landscapes (Madrid, 2014) The committee works in partnership with relevant regional and international organisations with an interest in 20th Century Heritage, such as ICCROM and Docomomo (Tostões, 2002). Here comes the invitation to other conservators-restorers to get more involved in these institutions; for sure, your expertise will be warmly welcomed!

Résumé

Even if one had to start with a dystopia, one shouldn’t end with it, hoping that the proposed argument won’t become a self-fulfilling prophecy! As early as in 1979 in Western
Germany, the most discussed argument by Stephan Waetzold and Michael Petzet was “Echtheitsfetischismus” (Waetzold, 1979), “authenticity fetishism” that Petzet changed in 1993 into the terminologically more correct “Substanzfetischismus”, “fetishism of substance” (Lipp/Petzet, 1994) This obviously rhetorical question just revealed the dead end of a one-sided postwar discussion about the concept of “truth”, “original” and “substance” in heritage conservation, marking the eternal dualism between “material and substance” and “aesthetical appearance”. In 1994, the Nara Document on Authenticity offered indeed a pluralistic approach: The acknowledgement of “cultural heritage diversity” (Lowenthal, 2008) leads to authenticity judgements that may be linked to the value of a great variety of sources of information, such as:

“Form and design, materials and substance, use and function, traditions and techniques, location and setting, spirit and feeling, and other internal and external factors” (Nara, 1994).

The concept of "progressive authenticities", which means the layers of history that a cultural property has acquired through time are being considered authentic attributes of that cultural property. The challenge for the conservator-restorer is always to find the right balance! It is quite obvious that compromises between preserving the aesthetical appearance, maintaining the material properties and stopping the normal and unavoidable “wear and tear” at the same time have to be taken in account. The so-called “cultural turns” of the last three decades were named after Richard Rorty’s programmatic “linguistic turn” of 1967 (Rorty, 1967). Rorty remarked the dependency of any form of knowledge on the dependency of language. The humanities focused on this concept with

- the “material turn” in the 1980s (Bräunlein, 2012);
- the “pictorial or iconic turn” in the 1990s;
- and finally, the “holistic turn” in the 21st century.

These were surely not paradigmatic changes but shifts in perspective and new questions leading to the concept of inter-, multi-, or transdisciplinarity in conservation.

So: anything goes in 2018?

At the moment, the interpretative, negotiative and communicative aspects of conservation practice are widely discussed. Participation and communication are the keywords of this new approach to monument conservation. In the past 30 years, the concept of “reversibility” has turned out to be a “myth” (Petzet, 1992). Reversibility doesn’t exist. So today we prefer to speak of a concept of “re-treatability”, which means that unavoidable interventions on a work of art – with sustainable materials and appropriate methods – should at least permit a re-treatment in the future (Appelbaum, 1987). Conservation works must be understood as a responsible management of change. The use of appropriate methods and re-treatable materials of conservation must take into consideration both the support – understood here as the architectural structure – and the surface. Full documentation of all work undertaken is not an end in ITSELF, but a management tool and the base for corrective and preventive action (Pursche, 2015). This concept of “corrective and preventive action” is focused on systematic investigations of the causes identified degradation processes and is meant to
prevent their recurrence or their occurrence. This can only be achieved by implementing an overall quality management system offering a regular and informed maintenance and care regime and a proper recording of any measures taken on the work of art or on the monument. At the end, some more comforting information should be given about the ongoing works at the Bauhaus buildings in Weimar and Dessau in preparation of the 100th anniversary in 2019. On this occasion, the Wüstenrot Foundation provided some funds for a proper revision of the heterogeneous and discussed result of the 1998 reconstruction of the so-called Master’s House Kandinsky and Klee (Danzl, 1999). At that time, it was a kind of self-defense in order to prevent irreversible damage to the house during reconstruction work when the author prescribed that any treatment of the surfaces should be re-treatable to the greatest possible extent (Danzl, 2006.2). This was not only in order to preserve the authenticity of the handed-down historic surfaces – as a data store in situ - but also for the now possible option of repeated analyses and evaluations in the case of new problems or in fact additional knowledge. Building materials which at the time had been destined to be thrown away were then collected and stored by Monika Markgraf of the Bauhaus Foundation Dessau together with the author in an archive managed by the Bauhaus Foundation. At the same time, a database was installed to collect all available historic and material information regarding the Bauhaus buildings in Dessau and Weimar. 20 years later, these two types of data stores not only offer valuable possibilities for the conservation sciences and for the conservator-restorer to correct speculative reconstructions. They also provide authentic materials for repair works – as in the case of the unique floor coverings called “Triolin”. Since in 1998 all the stratigraphic openings of the research work on the interior walls were conserved and mapped at a high standard before the buffer coating, new openings in 2017 could be limited to a minimum. After a first analysis of the pigments and colour hues, the spectacular colour scheme of the 1920s reconstructed in 1998 could be widely confirmed. Only a few colours were reproduced with an aged colour hue and during a recent investigation corrected. As time has shown, the path from theory to a commonly shared practice can be long and stony. Fortunately, the general attention that conservation specialists give to the importance of respecting the authenticity of materials during conservation-restoration has increased since then. However, without the material data stores the continuity of combining “real/analogue” and “virtual/digital” research work would have ended in an academic void. Hopefully, this success will be helpful in dealing with monuments of the second half of the 20th century!
Illustrations

Fig. 1 Dresden, “Kulturpalast”, monumental glass and stone mosaic: „The Way of the Red Flag“ („Der Weg der Roten Fahne“), Hochschule für Bildende Künste and Gerhard Bondzin, 1969, after Conservation / Restoration 2009-2017

Fig. 2 Dresden, “Kulturpalast”, monumental glass and stone mosaic: „The Way of the Red Flag“ („Der Weg der Roten Fahne“), Hochschule für Bildende Künste and Gerhard Bondzin, 1969, after Conservation / Restoration 2009-2017
Fig. 3 Sample of multicoloured glass particles used on interior and outdoor surfaces, Manual „Electric static Design for Surfaces“ („Elektrostatische Sichtflächen Gestaltung”), around 1967. Photo Credit: Archiv der Hochschule für Bildende Künste Dresden 2019

Fig. 4 Detail: combination of multicolored glass particles applied electric statically / natural stone pebbles as exposed aggregate concrete / red, blue, green and yellow glass drip as mosaic on concrete slabs. Photo Credit: Hochschule für Bildende Künste Dresden 2019
Fig. 5 Detail: combination of multicolored glass particles applied electric statically on concrete slabs. The artistic motif is ignoring the dimensions of the concrete slabs, the grey joint mortar emphasizes the mosaic like character. Photo Credit: Hochschule für Bildende Künste Dresden 2019

Fig. 6 Detail after cleaning: combination of multicolored glass particles applied electric statically / natural stone pebbles as exposed aggregate concrete / white and red natural stone grit spread on concrete slabs. Photo Credit: Hochschule für Bildende Künste Dresden 2017
Fig. 7 Detail before and after cleaning: combination of multicolored glass particles applied electric statically. Photo Credit: Hochschule für Bildende Künste Dresden 2017

Fig. 8 Stratigraphic scheme of the monumental mosaic. Photo Credit: Hochschule für Bildende Künste Dresden 2017
References


“CONSERVATION VERSUS RECONSTRUCTION.” [...]
Abstract: Modernist practice, the modernist way of conservation and restoration, is against historicism, against reconstruction. The main rule is: deceit, forgery, falsification is forbidden. Despite this, some reconstructions were undertaken in Hungary, and recently the pressure for reconstructions has become even greater. Unfortunately, the categories of listed buildings, open-air museums and Disneyland are sometimes mixed up by the public and even by decision makers.

Keywords: Ways of conservation, restoration, reconstruction, ethics, Hungary

1. Introduction

Modernist practice, the modernist way of conservation and restoration is against historicism, against reconstruction. The main rule is: deceit, forgery, falsification is forbidden. The authentic history of a building should be preserved, and this history consists of all the periods of the building, including those of destructions.

Despite this, some reconstructions were undertaken in Hungary, and recently the pressure for reconstructions has become even greater. Unfortunately, the categories of listed buildings, open-air museums and Disneyland are sometimes mixed up by the public and even by decision makers.

In my article presents some old and recent examples of copies and reconstructions. My aim is to make clear what maybe ethically acceptable.

2. Old examples – antecedents

Copying buildings, rather part of buildings was quite common during the age of historicism. Especially cinquecento was fashionable in Budapest, where you can find – among others - a nice palazzo Strozzi built in 1884. A solution according to the ideas of the architecture of the period – we shouldn’t criticize by today’s ideas.
A huge exhibition was organized in the City Park of Budapest on the thousandth anniversary of the foundation of the Hungarian state, in 1896. The so-called “ethnographic village” was a part of the exhibition. It consisted of typical houses of 24 regions, and the church was compiled out of Transylvanian buildings. This project was underpinned by the scientific approach of the time; thus, this village is a predecessor of today’s open-air museums.

Another part of the exhibition, - Vajdahunyad castle - was made with less scientific, rather a picturesque architectural approach. It is a compilation of copies of famous buildings standing in various regions of historic Hungary. Three aspects were important: visual appearance, touristic attraction and national pride. This solution is a stage design, an early ancestor of Disneyland.

These late 19th century examples do not represent an ethical problem as they are neither conservations nor restorations, and these copies do not stand on their original location. The problem is the way of restoration using reconstructions without authentic documents. Some alterations were made in the case of the facade of Ják abbey restoring it at the very beginning of the 20th century to create a more regular building. In the middle ages the nave had a wooden ceiling that was replaced by a groined vault in the baroque times. This restoration reconstructed the mediaeval rib vaulting – not the unknown original one, but the imagination of the restorer.

The restoration of the ruins of the church of Zsámbék in the same period is considered the starting point of modernist restorations. The building was preserved as ruins, and the necessary additions were made from brick. However, the architect, István Möller even designed a reconstruction of this very building in Budapest (1932). Of course, nobody can mix up the new church and the original one, this new church indicates the temptation and the challenge of reconstruction even for the experts.
Rebuilding losses of WWII was not as common in Hungary as in some other countries, but we can find some copies as well, for example some residential houses in the castle district of Buda. The rebuilding of the bombed bridges of Budapest represents the two main ways of thinking. Some of them are proper representations of the Kraków Charter being partly reconstructions as the “exceptional motives related to the identity of the entire community” were obvious. In the case of the Elisabeth Bridge a totally new bridge was built, but the size, proportions and the suspending structure of it is reminiscent of the lost one.

3. Recent, acceptable examples

One of the two towers of the Orthodox Church in Budapest collapsed in World War II. Reconstruction works began after the war, but they were not finished. Works recommenced about ten years ago. The missing tower will be a copy of the original twin which remained. The ornaments of the art nouveau façade of a Budapest hospital could not survive because of the lack of maintenance. They could be reconstructed according to detailed researches in situ and investigations of documents.

The railway station in Gödöllő used to have the Royal Waiting Pavilion. Roofs, details, and decoration disappeared after World War II. They could be reconstructed recently according to the remaining documentation.
The Elephants’ House of the Budapest Zoo used to have a minaret-like tower indicating the culture of the biotope of the animals, but it was pulled down just after completion in the 1910s because of the protest of Islamic states. It was reconstructed about 20 years ago – this time no protest arrived. Some of the smaller buildings were neglected, other disappeared in the zoo, and a few of them were recently reconstructed to regain the unique architecture of the zoo.

The Calvinist wooden church of Miskolc built in the Hungarian art nouveau style disappeared in a fire a few years ago. It could be rebuilt immediately using the original drawings and remains.

The old wooden bell tower of the Tákos Calvinist church collapsed in the 1930s, and it was replaced by a simple belfry. The original one was documented precisely, so it could be rebuilt in the 70s.

Another old bell tower – Nemesborzova - was dismantled and set up in an open-air museum in the 70s. A simple masonry tower was built in front of the church. The village was not pleased, and it had an exact copy built in 2000. This case shows even the difference of a preserved listed building and an exhibit of an open-air museum – in a strange, reversed way.
The synagogue of Mátó was built at the end of the 18th century in the Tokaj region. It was rather dilapidated, but it could be restored twenty years ago. The inner decoration was totally reconstructed. It is totally authentic made after in situ researches and old photographs, so it cannot be questioned from the point of view of ethics of reconstruction. On the other hand, the reconstructed interior reflects nothing of what happened to the Jewish community in the 1940s, where almost nobody survived in the settlement.

4. Recent, controversial examples

The remains of the gothic-renaissance royal palace of Visegrád were found in the 1930s. The courtyard remained in ruins after the first restoration works. Several scientific attempts were made to imagine the phases of the original building, but these proved impossible. Despite this, a version of the courtyard was built. This very reconstruction cannot be true as it isn’t consistent with the rules of classical architectural forms, and no details were found as evidence of the rebuilt version.

Sometimes it seems we live not only in the age of fake news, but that of fake olds. The renaissance house of Nyírbátor survived as a distorted barn. 10 years ago, a new plan was made to reconstruct the “original” building using some fragments found by the researches. The 18th century parts were pulled down and a renaissance façade was built using much more fantasy than original fragments. The original building was supposed to be a regular one, although there is no evidence of this. It is a typical example of conjecture-based reconstruction.
Füzér used to be one of the finest mediaeval castle ruins. Some roofs were made about 20 years ago to protect the most valuable and less collapsed parts of the ruin. Recently it was reconstructed according a 19th century ideology to create a proud, picturesque castle. The result is like Kreuzenstein, but without any original parts.

Distorted copies of windows of another church were used for reconstructing the lost traceries of the chapel windows. Pieces of furniture – like the altarpiece - derive from the Budapest National Gallery without any connection with the castle; and they are bad, non-authentic versions of them. The whole bedroom was built recently from the floor to the vaulting. The green painted decoration is an imitation of a Gothic revival decoration painted in another castle reconstructed in the late 19th century. Only three aspects are important again: visual appearance, touristic attraction, national pride. It could have been accepted as a product of entertainment industry if it wouldn’t have been built on the ruin covering the original surviving parts. For the visitors this architectural fantasy is the castle of Füzér itself, instead of the original one.
Budapest, Lónyay villa disappeared in World War II and its reconstruction began in the very end of the last century.

The concept of the townscape in the last 70 years was to maintain a green belt on the slope under the city walls, without any buildings. The reconstructed building is against this rule, so it doesn't fit to the surrounding. On the other hand, the building hasn't been reconstructed authentically, the materials and building technique are not according to the original. Unfortunately, this type of reconstruction becomes more and more common now in Hungary. Reconstruction of some parts of the palace of Buda has been decided. Some work has been begun. Some details – but not all of them - can be correct, but only as a form. The whole concept – “past under construction” - is questioned not only from the point of view of the ethics of conservation, but even from economic and political aspects, not to speak about good taste.
5. Conclusion

In any intervention all the categories of values by Riegl should be kept in balance even today (without neglecting historic and age values) to preserve authenticity and the document value of the heritage. Reconstructions cannot fulfil these demands, so they should be avoided; reconstructions can be accepted only in the cases of ‘vis major’ explained by the Kraków Charter.

I can add the following conditions:

Reconstruction must be an exact copy of the original. This correctness depends on the available documents, fragments, research, etc. The period of non-existence is important as well from this point of view. Architectural concept of the original building and the way of execution can be important as well.

The reconstruction should be harmful neither to the remaining original substance nor to the surroundings. The change of surroundings can make the reconstruction alien to the original location or even impossible.

And last, but not least:

Ruins and contemporary architecture can have their risk, but they are more interesting from the point of view of architecture, and they can be much clearer from the point of view of ethics.
Abstract: Between the conservation-restoration of several disciplines like sculpture and that of architecture differences in the application of the general ethical guidelines exist. Because some “objects” like architectural statuary cannot be classified under one specific discipline this paper attempts to outline the parallels between the applicable disciplines and to point out any inconsistencies, thus encouraging an environment in which the cross-pollination of the principles of a minimal, reversible and stable intervention can thrive and bridging the existing gap between the different fields. Two case studies undertaken by KIK-IRPA Brussels of the treatment of architectural statuary from around 1900 in Brussels are used to illustrate some of these aspects.

Keywords: Terracotta, architectural statuary, polychromy, polychrome sculpture, ethical guidelines

Introduction

In the past, our profession has developed ethical guidelines for treatments that optimise a range of requirements that take the aesthetic and technical considerations into account. These universal codes are largely adopted by conservator-restorers. Comparison of the recent conservation-restoration history of sculpture and architecture reveals that the importance given to the different considerations differs significantly depending on the subgroups in which they are classified, such as architectural decorations, contemporary art, and stone, wooden, terracotta or polychrome sculpture, etc.

In architecture, it is broadly accepted to repaint interior as well as exterior surfaces in their original colours. A good example is Fallingwater, the house designed by Frank Lloyd Wright.
in 1935. The stucco-covered concrete has always been painted and its original light ochre colour was even specified by the architect himself in 1937 (Fallingwater, 2006). Between 1937 and 2006, the house was repainted at least seven times, using a variety of paint manufacturer products.

In the case of polychrome wooden sculpture, it is common knowledge that in the past, the rich polychromy was often scraped off. Johannes Taubert and Paul Philippot however argued that the colour of polychrome sculpture is in service of the sculpted forms and they became role models for conservators of this type of artworks (Philippot, 1970). In general, we can say that in current-day Belgium polychrome wooden sculpture is highly valued and examined and conserved with much respect. Contrary to architecture, repainting or retouching large parts of a statue is absolutely unacceptable and would even be classified as a forgery.

On the other hand, polychrome terracotta and stone sculpture, especially outdoor pieces, are often stepmotherly treated. Next to the complexity of the conservation of outdoor sculpture, this might also be due to a lack of attention for the study of polychromy during the education and therefore a gap in the know-how of interpreting observations. While sampling is often carried out to define the number of overpaintings, observation windows are rarely made to discover how different polychrome interventions really looked like (Fig. 1).

Fig. 1 Eucharistic tower, Hiéronymus Duquesnoy, 1604 (Sint-Martinuskerk, Aalst): detail of a stratigraphic window on the architecture around the sacarium (southside). Multiple layers of overpaint cover original alabaster imitation (© KIK-IRPA, Brussels, Camille De Clercq)
Furthermore, for sculptures in stone and stonelike materials, it is also largely accepted to repaint the statuary in brick red, beige or white, as long as it slightly resembles a terracotta or stone imitation. This often resulting in a situation that never existed before. Sometimes a polychrome detail, such as partial gilding or a detail in another colour, is added based on an incomplete study of the paint layers. As a result, the sculpture is then repainted in a combination of colours that were never visible at the same time.

It is clear that there is a difference in the study and conservation-restoration activity of a sculpture and architecture, whether polychrome or not. Different opportunities and constraints arise even if the properties of materials are similar. Are the standard ethics and principles of the conservation-restoration profession then insufficient or inappropriate to meet the needs of architectural polychrome statuary?

Jonathan Ashley-Smith presented a method to stimulate people to think about the ethics of the treatment of objects and proposed a framework for documenting local attitudes to different aspects of decision-making about treatments (Ashley-Smith, 2017).

The point is that the conservator-restorer, who is aware of the general ethical guidelines for conservation-restoration, develops a bespoke code of ethics for this type of case, in co-operation with the stakeholders (architects, owners and city). To develop this bespoke code, Renée van de Vall appeals to conservators to analyse how principles have been applied in paradigmatic case studies to arrive at appropriate decisions for works under their care (van de Vall, 2009). Unfortunately, surveys of modern architecture tend not to pay particular attention to the statuary so there is hardly any documentation about their conservation-restoration. The conservators-restorers, the owners and the architect are therefore dependent on themselves to decide about conservation-restoration decisions.

Recently, the stone sculpture conservation studio of the Royal Institute for Cultural Heritage (KIK-IRPA, Brussels) has dealt with two cases of architectural statuary in terracotta from around 1900 in Brussels. In both cases the conservation-restoration treatments were approved by the same commission composed of the architects of the Monuments and Sites Agency of the Brussels-Capital Region, the owners and the team of KIK-IRPA's Stone sculpture studio. Despite these similarities, the outcome of the decision-making about the treatments differs significantly.

First Case Study

The first case study concerns the polychrome terracotta statue of Saint Anthony from Padua (Fig. 2) from Georges Houtstont (Paris, 1832-Brussels, 1912), the leading ornamentalist in Brussels during the second half of the nineteenth century. The artist started his career in Paris where he was born in 1832. He executed amongst others decorative work at the Palais du Louvre. When he was 30 years old, he moved to Brussels where he became professor in sculpting at the Academy of Fine Arts in Saint-Josse-ten-Noode and ran a very active workshop. He collaborated with the main architects of his time, such as Henri Beyaert and...
Joseph Poelaert. He died in Brussels in 1912.

The 138-centimetre-tall statue of Saint Anthony is conserved outdoors in its original niche at a height of 8 meters. It makes part of a completely preserved neo-Gothic site in Brussels, consisting of a church and a convent created by architect P.J.H. Cuypers (16 May 1827 – 3 March 1921) in 1868. Saint Anthony, patron of the church community, is represented in a typical way and with his usual attributes. He is wearing the Franciscan habit, with a rope belt and a large rosary hanging from his robe. He holds the Infant Jesus in his hands. After an outdoor exposure of 150 years, the conservation state of the sculpture was problematic. The most badly weathered parts are situated at the bottom of the right arm and
at the base. Infiltration of rainwater and rising damp in combination with frost action provoked a series of small cracks and delamination resulting in material loss. The terracotta surface of the sculpture was largely unprotected as a large part of the paint layer was missing. Stratigraphic investigation however showed that the sculpture was originally finished with a paint layer. The realistic effect of the statue was emphasized by this elaborate polychromy. The soutane resembled black velvet with a yellow-brown rosary and the Infant Jesus wore a light blue loincloth. The original polychromy is well preserved on the flesh tones but largely disappeared on the robes vestments, especially on the front side. The statue was overpainted twice. First in colours similar to the original polychromy and later with a whitish paint layer. The binding media were not fully identified. However, there is evidence that all the paint layers were bound in an oil medium.

It is obvious that the priority of the conservation treatment is to stabilize the terracotta support. The cracks where rainwater could infiltrate were filled and the statue’s partly broken base was consolidated. To keep the intervention to a minimum, broken parts that do not have a supporting function such as the monk's sleeve and the Child's limb have not been restored.

Fig. 3 Statue of Saint Anthony, Georges Houtstont, ca. 1868, polychrome terracotta. The group during the treatment, still covered by greyish overpaint on the right; on the left, the polychromy cleared of the overpaint which weighed down on it (© KIK-IRPA, Brussels, Camille De Clercq)
Since the expression of the face of Saint Anthony was completely lost, we decided to test the possibility of removing the whitish overpaint. The result was aesthetically very satisfying (Fig. 3). Unfortunately, this approach could not be applied on the other parts of the sculpture as the polychromy had largely disappeared. On the front side of Saint Anthony’s robe for example, there were hardly any remains of the original paint layer.

Fig. 4 Statue of Saint Anthony, Georges Houtstont, ca. 1868. Before treatment on the left; on the right after treatment. Partially repaint the statue has, next to an aesthetic and iconographical function, also a very important protective function against the severe weather conditions. (© KIK-IRPA, Brussels)
An important element in the decision-making on the conservation-restoration treatment is the location of the sculpture, as both the owners and the architect were strongly in favour of keeping the sculpture in its original niche. However, because the statue must be replaced outside, a protection of the damaged surface against severe weathering conditions was an absolute necessity. The fragile terracotta support definitely needed a protective coating. Therefore, we decided to remove the whitish overpaint on the flesh tones and recover the vestments with reversible conservation paint products in their original colour scheme (Fig. 4). The remains of the original polychromy were preserved underneath this new layer of paint, as a historical witness. As new painting materials a ground layer ("Gesso", an acrylic coloured ground layer from Golden) and paint (Golden MSA) were used. They have both been tested at the KIK-IRPA during a 10-year period with very good results: good colour, good attachment, no peeling and perfectly reversible.

To conclude we can resume that the statue that represents Saint Anthony in a very classic way with the usual attributes and original polychromy, cannot be valued as an innovative masterpiece, despite the fact that Houtstont was an important sculptor in nineteenth century Brussels. Therefore, there is no need to overprotect it by placing it in a museum context. As a depiction of the patron of the church and the convent, the polychrome statue has a very high religious value. Partially repaint the statue has, next to an aesthetic and iconographical function, also a very important protective function against the severe weather conditions.

Second Case Study

The second case study is the group of three reliefs from Pieter Braecke (1858-1938), a student of Georges Houtstont. It concerns architectural decorations made for the street façade of the private house in Woluwe-Saint-Pierre (Brussels) of the Symbolist painter Emile Fabry (Verviers, 1865–1966). The reliefs were added to the façade shortly after the house was built in 1902 by the architect Emile Lambot (1869-1940). The group consists of two reliefs representing kneeling women at both sides of the door and the portrait relief of the painter Fabry above the door (Fig. 5). The pieces represent the personal style of the artist Pieter Braecke.

During our inspection, it appeared that only one of the three reliefs from the façade was still the original made out of red baked terracotta. Apparently, the two others were replaced by replicas in a terracotta-coloured mortar. It was only during our study that the landlords informed us about an unexpected and interesting fact: another copy of the central figure was kept in their garden. After our examination it appeared that the ‘garden relief’ was not a copy, but the original terracotta representing the portrait of the painter (Fig. 6). So instead of three original terracotta reliefs on the façade, there was only one original on the façade.

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1 The ground layer ("Gesso", an acrylic coloured ground layer from Golden) and paint (Golden MSA) were tested at the KIKIRPA for 10 years. The good colour aging, good attachment, no peeling ensure that the products offer good protection for the support. Moreover, they are perfectly reversible.
one original in the garden and furthermore two replicas on the façade. Unfortunately, the original terracotta from the second female figure has disappeared.

Fig. 5 Three reliefs, Pieter Braecke, 1902, from the street façade of the private house of the Symbolist painter Emile Fabry in Woluwe-Saint-Pierre. Only one of the three reliefs, the kneeling female on the left, is still the original made out of red baked terracotta. The two others were replaced by replicas in a terracotta-coloured mortar. (Brussels) (© KIK-IRPA, Brussels, Camille De Clercq)

Fig. 6 The original terracotta relief representing the portrait of the painter, for years kept in the garden of the landlords, FIGcliché x108851 (© KIK-IRPA, Brussels)

The deterioration of all four of them was advanced. The deterioration pattern of the two terracotta reliefs is mainly determined by the presence of cracks and delamination resulting in material loss on the entire surface. This damage was, as with the statue of Saint Anthony in our first case study, provoked by the combination of water seepage and frost. The thinner parts, such as the flowers in the hair of the left female character seemed to be very sensitive to this process as they were severely damaged. Furthermore, a lot of previous restorations were aesthetically disturbing. Lacunae were filled with gypsum or cement-based mortars. Apart from the colour difference with the terracotta their composition is inadequate for outdoor use or incompatible with the original material. Concerning the two mortar copies we can say that, despite their formal compatibility with the original sculptures, their state of conservation wasn’t satisfactory either. The indefinite mortar was damaged by physical and chemical degradation, resulting in an uneven surface. Furthermore, we could observe black crusts.
It was decided that the original reliefs in terracotta were too fragile to be exposed outside in the future. The old mortar copies wouldn’t be re-used either because they are also not suited to be exposed in an outdoor situation. Therefore, we proposed to make three new replicas with a lime-based mortar\footnote{In order to manufacture the replicas, we tested several types of “Parthena moulage”} in a terracotta colour for the decoration of the façade and preserve the original reliefs in a protective environment. At the moment, the discussion concerning the future place of conservation of the originals is still ongoing. In fact, two options have been suggested. Firstly, as the reliefs were especially specifically designed for this house, conserving them inside this house could be a possibility. Another option would be to display the reliefs in a public space. The originals could be exhibited in the town hall of Woluwe-Saint-Pierre or at the museum of the CIVA foundation in Brussels, specialized in architecture.

**Conclusion**

Despite the similarities in the type of statuary and condition the treatment and choice of conservation-restoration environment were completely different. The main purpose is to preserve the art objects in such a condition that future generations may experience and study their value. Another aim is to follow the principles of minimal, reversible and stable intervention. In our two case studies all these conditions are fulfilled but applied in different ways.

The Saint Anthony of Padua was polychromed and appreciated for his religious character. Applying partially a new polychromy was essential to recognize the subject as a Franciscan monk and for the conservation and protection of the object at his original site.

Braecke’s reliefs were not polychromed and they have suffered a lot of damage from their creation onwards. In fact, the reliefs are not suited to be placed on a façade. If we want to preserve the reliefs, it is indispensable to preserve them indoor.

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**Author contributions**

Camille De Clercq, senior conservator at the stone sculpture conservation studio took the lead in writing the paper with support from Judy De Roy, head of the stone sculpture conservation studio. Both authors discussed the results, commented on the manuscript and guided the discussions of the commission. Camille performed the conservation-restoration of the statue of Saint Anthony from Padua. Judy helped supervise the project.
Bibliographic References


IV. Case studies in conservation-restoration and the practical relevance of theory and ethics

The “Stigmata of Saint Francis” in the Bardi Chapel of Santa Croce in Florence – a Proposal of Reconstruction
Maria Rosa Lanfranchi

Ethical challenges associated with the conservation of the wall paintings in the Chapel 11 at the UNESCO site of Sacro Monte di Varallo
Francesca Piqué & Giacinta Jean

Lucio Fontana and Architecture – two cases studies
Barbara Ferriani

The conservation work lab turns into a museum
Andreina Costanzi Cobau
Abstract: For the conservation restoration of Giotto's Stigmatization, painted in the transept of Santa Croce, it was considered the possible new retouching of forms replaced by some old reconstruction, totally out of context after cleaning. The logical process followed in this specific case study was based on the drawing repetitions demonstrated by Giotto in his creations. The nature of the proposal of our of retouching it's guaranteed by the reintegration technique that allows to recognize the new reconstructed forms and the reversible binder (watercolours) will allow a future cancellation of the fills.

Keywords: Wall painting; Giotto's Stigmatization; conservation restoration; historical and stylistic consideration; reintegration

Introduction

The subject of our treatment is the scene painted on the outer wall of the Bardi Chapel where it opens onto the transept of the Basilica of Santa Croce in Florence, to the right of the Cappella Maggiore. The chapel is dedicated to Saint Francis of Assisi and the pictorial decoration shows episodes from the life of the Saint from the *Legenda Maior*, the biography written by Saint Bonaventure (Bonaventura da Bagnoregio, ca. 1217-1274), that became canon for the Order in 1266. The fact of placing the *Stigmatization* on the frontispiece of the chapel says how the episode was, in a certain sense, the manifesto of the founder of the Franciscan Order, since the extraordinary fact was immediately celebrated as the salient element as well as the crowning one of the life of the Saint, dedicated to the literal following of Christ: the gift of the marks of the Passion were the proof of a perfect similitude. This would have been very evident for the Franciscan friars who founded the church, who therefore offered it for the veneration of the faithful by placing the scene high up, on the wall at the back of the transept, and quite visible within the church, even by those that would have stopped outside
the tramezzo that then divided the interior.¹

Figure 1. View of the transept for the Bardi Chapel and the Stigmatization (Photo Credit Lanfranchi)

¹ The tramezzo was a tall masonry construction between the third and fourth pilaster, starting from the transept, that divided the part of the church reserved for the laity from that reserved for the friars. It was demolished in the Vasarian renovation of 1565. The episode of the Stigmata is described in many Franciscan sources. Official writings, that is, those commissioned by the Order should be especially considered, like the Vita Prima written by Thomas of Celano (c. 1190–c. 1260) in 1228, from which is derived the Legenda ad usum chori a more succinct version read during the Ottava for the Feast of the Saint (that is in the week before October 4); then the Vita Secunda and the Tractatus de miraculis (1252–53) also by Celano, which includes the Stigmata episode compensating for the omission made in the Vita Secunda. All of these works, by the 1266 decree of the Franciscan chapter, were replaced by the Legenda Maior written by Saint Bonaventure (ca. 1217-1274) in 1260-63. Just as for the Legenda Minor, the short life, the text of Bonaventure was read in the communities of the Order in place of Celano's Legenda ad usum chori. As an example of the spread of the story, we cite an unofficial source like the Leggenda dei Tre Compagni written after the Legenda Maior which describes the episode as well. See: Fonti Francescane, 2003; an extensive collection of Franciscan sources are also found at the following. Site: http://www.santuariodelibera.it/FontiFrancescane/fontifrancescane.htm. For an iconographical interpretation of the whole cycle, see: Long, J. C. (1992). The Program of Giotto’s Saint Francis Cycle at Santa Croce in Florence. Franciscan Studies 52, pp. 85–133; and, especially for the role of the Stigmata in the decoration in Santa Croce, pp. 113–117.
The Stigmatization of Saint Francis, together with the entire Bardi Chapel, was painted by Giotto (Giotto di Bondone, ca. 1267–1337), probably in the third decade of the fourteenth century. The scene occupies an almost square field of about 4 meters per side. We recall that the episode tells the story of what happened in 1224 on the mountain of La Verna where the Saint, in prayer in a secluded place, received a vision of the crucified Christ in the form of a Seraph who granted him the gift of the five wounds of the Crucifixion: on the hands, ribs, and feet. The miraculous event is represented thanks to the pictorial expedient of a series of rays of light that emanate from the crucified Christ and strike the points of the body of the Saint on which the stigmata are impressed.

The composition is therefore made up of only a few elements: the figures of Saint Francis and of the Seraph/Crucifix; the Saint in the act of making a vigorous twist toward the Seraph showing his reaction of surprise to its sudden appearance, all in a rather rough rocky landscape; to the right of the Saint, the small church of Saint Mary of Angels connected to the convent, that is, the first structures in stone that were built on the mountain. An elaborate and elegant frame of dentillation and cosmatesque intarsia, once finished with gilding and some blue areas, encloses the scene and, at the time, as today, would have contributed to its prominence on the wall. The communication of meaning is therefore trusted to the mutual relationship between the two figures, as no other

2 The execution of the Bardi Chapel cycle is placed in various positions in the chronology of Giotto’s activity, but most scholars tend toward a date within the third decade of the fourteenth century when the master was certainly in Florence as master builder of the Opera del Duomo. Another terminus post quem is identifiable as 1317, the date of the canonization of Saint Louis of Toulouse, depicted on the back wall. See: Boskovits, 2000, pp. 417–18. Alessio Monciatti recently has considered Giotto’s stay in Naples beginning in 1328 as the terminus ante quem for the execution of the chapel’s pictorial cycle based on stylistic comparisons to paintings made in that city; See Monciatti Alessio: Per l’Apparizione al Capitolo di Arles di Giotto nella cappella Bardi di Santa Croce in Firenze, in Progetto Giotto: Tecnica artistica e stato di conservazione delle pitture murali

3 The iconography changes over time: at the beginning it is an angel that appears to the Saint: beardless, with open arms and no cross, then, progressively, it is depicted as the crucified Christ. The color of the rays, in some cases, changed from gold to red beginning in the fifteenth century. The first version of the story of the Stigmata is shown, for example, in the panel of Bonaventura Berlinghieri of Pescia or in that of the Master of the Bardi Saint Francis, painted in the first half of the thirteenth century and displayed today in the same chapel. In the first two versions by Giotto, that of Assisi and the Pisan panel, the apparition is without a cross and the face is bearded like Christ; in the scene of the Bardi Chapel, however, the cross is suggested through the use of red contrasting with the blue sky. The material quality of the wood of the cross will become increasingly evident with the passing of time; by 1320–25, in the left wing of the transept of the Lower Basilica in Assisi, Pietro Lorenzetti clearly paints a wooden cross for the Crucifix that appears to the Saint. The important meaning that the Stigmatization had for the disciples of Saint Francis is spoken of in the texts, for example that of Saint Bonaventure, “Francis, then, being made a new man, was distinguished by a new and astounding miracle, and was seen to be marked but by an unparalleled honor that had been granted unto no past age; to wit, he was adorned with the sacred Stigmata, and conform’d, in the body of this death, unto the Body of the Crucified.” [translated by Gurney Salter, E. (1904). The Life of Saint Francis of Assisi, Saint Bonaventure, New York, Dutton] See also: http://www.santuariodelibera.it/FontiFrancescane/fontifrancescane.htm.
spectators are present.\textsuperscript{4}

Figure 2. The scene of the Stigmatization of Saint Francis after the recent treatment (Photo Credit Latronico OPD)

The Giottesque painting had reached us in a precarious state of preservation, with deep fractures in the support, detaching and deformed areas, occluded by various coherent deposits and patinas and altered from an iconographic point of view by preceding treatments. Our conservation-restoration, carried out from 2011 to 2013\textsuperscript{5}, has provided an essential

\textsuperscript{4} Giotto addresses the theme of the Stigmatization first in the cycle of the Upper Basilica of Assisi at the end of the thirteenth century, then in the great painted panel for the church of San Francesco in Pisa and now in the Louvre, and then years later for the Bardi Chapel in Florence. This last version is distinguished, above all, for the pose of the Saint which in the preceding ones is turned frontally with respect to the Seraph and furthermore, for the absence of the structure of the hermitage, or rather the small chapel to the left of the Saint. The Assisi version is the only one which shows Brother Leo, on the right, a figure considered by many scholars to be a late addition in the story of the Stigmata, whose bearing witness guarantees the truthfulness of the event and therefore counters eventual detractors to the miracle that immediately came forward.

\textsuperscript{5} The restoration carried out from 2011 to 2013 was performed by the team of the Opificio delle Pietre Dure; the area of focus was not only the Stigmatization, but the entire painted outer wall of the Bardi Chapel and the Tolosini Chapel. Site director: Cecilia Frosinini; conservator-restorers: Fabrizio Bandini and Alberto Felici for the face of the Tolosini Chapel, with the collaboration of Ilaria Barbetti, Bartolomeo Ciccone, Sara Penoni, and Cristiana Todaro. Maria Rosa Lanfranchi and Paola Ilaria Mariotti for the face of the Bardi Chapel; with the collaboration of Gioia Germani, Ottaviano Caruso, Serena Martuzzi di Scarfizzzi and Anna Medori (Medori also for the digital reconstruction). Photographic documentation: Annette Keller (technical imaging) and Angelo Latronico; archiving and management of digital data, Culturanuova s.r.l., Arezzo; scientific analysis Giancarlo Lanterna; Carlo Galliano Lalli: Laboratorio OPD Fortezza da Basso; Alessandro Migliori; Alessia Daveri, Davide Vagnini: UniPG; Claudio Seccaroni: Enea Roma; See Bandini, F., Felici, A., Lanfranchi, M. R. & Mariotti, P. I., 2014a, pp. 102–105; Bandini, F., Felici, A., Lanfranchi, M. R. & Mariotti, P. I., 2014b, pp. 268–290.
opportunity to rediscover the state of the material reality of the Giottesque document; here we will not deal with the diagnosis of the deterioration or the methodology of conservation-restoration, but we will concentrate on that which emerged in the course of the treatment on the misleading interpretations of the scene created by past restorations and therefore on the decisions that we made, consequently, to recuperate an image that is more in keeping with the original.

**Conservation history**

The modern restoration history of our painting begins in 1869 when the restorer Gaetano Bianchi (Florence 1819–1892) completed the campaign of discovery begun two years earlier with the aim of finding traces of old decoration in the transept of the Basilica after the previous century had covered all traces of medieval painting under various layers of flat, monochrome paint. Thus, the *Stigmatization* was found in the course of Bianchi’s work, after he had uncovered some years earlier the decorations inside the chapel, also hidden by whitewash. After the uncovering of the fragmentary wall painting, the artistic restoration was carried out to compensate for the various lacunae with the aim of giving back continuity to the image and, as was common practice in the period, the pictorial integration was executed according to mimetic criteria so as to be indistinguishable from the original. A photo taken between 1920 and 1930 shows the condition of the painting many years after the treatment by Bianchi, in a state of apparent wholeness; there are no areas left abraded or lacunae and given the lack of documentation about possible subsequent work, we can suppose that this was still the result of the nineteenth-century restoration.

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6 Gaetano Bianchi, a famous painter at that time, was specialized in restoration and sought after for major discoveries and reconstruction projects with medieval decoration. In the case of the restoration and partial reconstruction of the wall paintings in the Bardi Chapel, he was particularly criticized for his Giottesque style interpretation. The work inside the Bardi Chapel began in 1852 after the dismantling of the Baroque wooden paneling brought to light the wall paintings surviving on the back wall. See Masi, 2009, pp. 9-68. However, the author does not mention the work of Bianchi in the transept, for this, see: Cappuccini, 2014, p. 50. Also see, Olson, 1997, pp. 44–55. This article shows images of all the scene with Bianchi’s restorations.

7 For the date of when the chapels were painted over, we have a reference of 1730 in which Mons. Giovanni Gaetano Bottari (Florence 1689 – Rome 1775), in a note to Raffaele Borghini’s *Il Riposo* describes that the paintings in the Peruzzi Chapel were still visible, while those of the Bardi Chapel had already been whitewashed. In this same century, we can probably also place the whitewashing of the transept. See Bonsanti, 2002, pp. 77–90.

8 In the photo Brogi took between 1920 and 1930, the painting appears very dirty, marked by various water infiltrations from the upper window.
In 1937, on the occasion of the sixth centenary of the death of Giotto, a retrospective was planned on his painting oeuvre and that of his school in Florence including the chapel of the Bargello and five chapels in Santa Croce. In the Basilica, for the chapels Bardi and Peruzzi, only consolidation to secure the paint layers and dusting were done to render the two wall painting cycles more pleasing. For the *Stigmatization*, the most isolated and visible of all, a complete conservation-restoration was undertaken. The whole conservation-restoration was handled by the conservator-restorer Amedeo Benini (1883–1949), well-known at that time and in charge of a flourishing conservation-restoration company in which his sons

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9 These were the Bardi and Peruzzi by Giotto, Pulci by Bernardo Daddi, Bardi di Vernio by Maso di Banco, and Baroncelli by Taddeo Gaddi. The conservation-restoration proposal was made in 1936 by the Executive Commission of the Mostra Giottesca and the Comitato dei festeggiamenti per Giotto. See Gurrieri, F., Gori, S., Petrucci, F. & Tesi, V. (Eds.), 1998, p. 175.
Cesare and Lamberto also worked. The treatment was carried out under the direction of the Gabinetto di Restauro, newly established at the Uffizi by Ugo Procacci (Florence 1905–1991). The results of this campaign can be deduced from the photographic documentation produced at the time: Benini carried out cleaning, removing the dust and numerous signs of dropping water damage, obtaining a clearer image, but essentially not touching the old mimetic reintegration and patches of intonaco that can be easily recognized as such, as is described in the report by Procacci in the Rivista d’Arte of 1937.

Figure 4. Condition of the scene of the Stigmatization after the treatment by Amedeo Benini (Photo Credit Soprintendenza Firenze; Archivio Opificio)

The story of the Benini family is that of decorative painters borrowed by the restoration world as was usual at that time, they develop a particular interest for investigating the working methods of the old masters, even making good copies of some of the restored paintings. Their activity in the field of conservation-restoration takes place from the twenties to the sixties of the last century and touches all the important fresco cycles of Florence, as well as many tabernacles. For the activity of the Benini company, see: Gurrieri, F., Gori, S., Petrucci, F. & Tesi, V. (Eds.), 1998, pp. 115–184. Of the sons Cesare (1911–1993) and Lamberto (1914–1969), we know the first attended, beginning in 1942, the first class of the school of the new Instituto Centrale del Restauro, founded three years earlier in Rome on the initiative of Cesare Brandi and Giulio Carlo Argan.
Various intonaco repairs of a certain size were noted along the left side and along the frame at the bottom, another was erroneously identified inside the scene and two other smaller ones located at significant places inside the figure of the Seraph, that is, along the upper limbs.¹¹

Figure 5. The scene of the Stigmata of Saint Francis: Mapping of the historical Fillings, OPD 2013; Lanfranchi; Mariotti; graphic processing Culturanuova srl, Arezzo.

First, Bianchi had restored the motifs of the geometric pattern of the frame and furthermore, he had recreated the forearm with the right hand and the left hand of the figure. As always, the borders of the fills extended beyond the actual loss. These restorations, barely discernable in the photo of the 1920s/30s became slightly more evident after Benini’s cleaning but the real change of his conservation-restoration was the addition of the rays that emanate from the hands of the Seraph to those of the Saint and that appear exactly inverted with respect

¹¹ See: Procacci, 1937, pp. 377–389. For the pictures in the article, Procacci marked the outlines of the reconstructed areas in all the scenes and for the Stigmatization, he considered the tree on the right of the Saint a restoration along with a piece of the rock and background, while in reality, those passages of painting are original. The author is also imprecise in outlining the contours of the restoration of the right forearm of the Seraph, indicating only the hand. Procacci wrote also that the painting of the Stigmata was “generally well preserved” aside from some parts like the Seraph and the head of Eve (Procacci, 1937, p. 386). For more on the vast activity and personality of Ugo Procacci, see: Ciatti & Frosinini. (Eds.), 2005.
to the previous version: they run from the right hand of the Seraph to the right hand of the Saint; and the same for the left, similarly to the pattern for the rays of the feet.

It is possible that not re-making the nineteenth-century fills was due to a methodological choice or not having enough time, because it would have also been evident to Benini that their quality was poor. These were rougher fills than the Giottesque intonaco; the rendering of the limbs furthermore was of mediocre quality and even the color of the reintegrations matched poorly with the overall appearance once the patina of deposits had been cleaned away. Benini himself, ten years later, carried out the conservation-restoration in the Cappella Maggiore in an entirely different way, substituting all the old fills in the decorative areas with new, well-executed ones, and removing a completely redone figure.12

We do not know the reason for re-drawing the rays because for now we do not have any record of the critical choices of the reintegration; presumably this reconstruction was done based on a simple analogy of correspondence between the Seraphim/Crucifix and the Saint, as for the rays of the feet. The observations made at the time of our conservation-restoration have, in fact found, in addition to the almost entire disappearance of the original gold, the distinct presence of incisions made along the original path, which would have also been visible to Benini and Procacci. It is therefore difficult to explain today the decisions that were made at that time.

The Bardi and Peruzzi chapels underwent a complete conservation-restoration only between 1958 and 1961 by Leonetto Tintori (1908–2000), again under the supervision of Procacci; this time the radical treatment was carried out by removing the nineteenth-century reconstructions with the aim of rediscovering the original character of the Giottesque painting and maintaining only the integrity of the original. At the same time, the previous reconstructions painted over new intonaco were saved, as witness to the history of restoration: once removed (by strappo) they were re-adhered to composite wood panels and are today preserved in part at the Basilica di Santa Croce and in part in the storage of the Soprintendenza. The Stigmatization was not touched in the conservation-restoration campaign of Tintori and Procacci. It only received new attention in our campaign of 2011.13

12 For the conservation-restoration of the Cappella Maggiore of Santa Croce, see: Lanfranchi, 2014. Benini substituted the old restorations on the decorative parts with more precise and perfectly imitative reconstructions, while for some of the important figurative parts, like a small figure of a prophet in the right lunette, he opted for a neutral solution. In these years, perhaps his son Cesare, fresh from the Roman ICR course, influenced his choices. We must remember that Roberto Longhi, famous art critic and art historian, wrote in those same years to the Ministro della Educazione Nazionale lamenting the fact that in the Bardi and Peruzzi chapels they had not tried to remove the nineteenth-century restorations which according to Longhi "intervened so boldly on the full original... that they affected the meaning and character a lot" and still" indulging in the fact that they have been left like this for almost a century." See Gurrieri, 1998, p. 176.

13 Leonetto Tintori removed all the additions of Bianchi in the Bardi Chapel, detaching the figurative restorations when they were made on fills and recreating in their place "neutral" areas while the decorative portions were simply toned with a grey color. See Bonsanti, 2002. The fragments detached by Tintori and placed in storage were recently the subject of a maintenance campaign thanks to an educational workshop of the Scuola di Alta Formazione of the Opificio.
The new appearance of the scene after the last conservation-restoration; 2011-2013

During the treatment, the cleaning made all the old restorations more apparent: those along the frame, carried out mostly in tempera, now appeared to be a dull, grey tone with respect to the dazzling brilliance of the Giottesque original, carried out in buon fresco, but certainly they still carried out the function of connecting the parts.

Figure 6 a and b. An example of a historical reconstruction of a lacuna on the frame, and its substitution with a new (reintegration technique) during the last conservation-restoration 2013 (Photo Credits Latronico per OPD)

By contrast, on the figure of the Crucifix, in addition to appearing chromatically dissonant, Bianchi’s restorations were very clearly inadequate with respect to the surrounding areas, especially after the rediscovery of the true outlines of the lacuna with the fragments of the original hands.

Figure 7 a and b. The arm as it appeared during the cleaning, in 2013 (Photo Credits Latronico per OPD)

From a procedural point of view, the preservation of old restorations is evaluated today on a case-by-case basis and often these are judged to be worth saving in that they are a historical
record, especially if they are in good condition and when they compensate for a loss that it is otherwise impossible to reconstruct. According to current conservation-restoration theory, in fact, if there are no unequivocal indications in the original pictorial parts, surviving and surrounding the loss, it is not possible to reconstruct some elements without it being in an arbitrary manner. Brandi had indicated that it was necessary to evaluate the pictorial text limiting oneself "to carry out the suggestions implicit in the fragments themselves or available from authentic evidence of the original state." Certainly, in the case of the Bardi Chapel *Stigmatization*, the figural elements of the arms of the Seraph, although incongruous and of little artistic value, were fundamental constituents in the representative context of the scene, so careful thought was required to decide whether or not to remove them.

During the cleaning the original path of the rays that emanated from the Seraph became quite evident, a path that Giotto had indicated with a snap-line and multiple incisions to show a multiplication of lights for each ray, surrounded by shorter rays. It was therefore possible to judge the rays recreated during the previous restoration treatment as misleading, the result of naive simplifications and a misrepresentation of the old marks. The original version aligned our *Stigmatization* with the previous portrayals by Giotto, first in Assisi in the cycle of the Upper Basilica and then in the great Pisan panel of Saint Francis, now in the Louvre, in which the rays are inverted arriving at their destination with respect to the source, as if they were reflected in a mirror image. As these are therefore essential elements for the right reading of the representation, it seemed important not to accept the situation inherited from a previous error of interpretation and thus we sought to return to the original course.

**Technical solutions**

The issue of the rays posed above was not the only problem and specifically this was an easily resolvable situation in which, to render justice to the Giottesque plan, the removal...

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14 Regarding the current approach to the preservation or removal of old restorations, especially those of the nineteenth-century, including the case of reconstructions whose removal leaves the image hard-to-read or in any case fragmentary, see Tollon, 1995, pp. 9–16. See also, as an example of a past cultural context, differing in its approach to reconstructions in being almost neo-purist, the 1979 treatment of the Velluti Chapel in Santa Croce carried out by the Opificio, where some old figurative reconstructions were dismantled, substituting them with “neutral” areas created with the method of *astrazione cromatica*. For this technique, see Casazza, 1981, pp. 61-78.

15 In the first publication of 1963 of Brandi’s *Teoria del restauro*, the subject of the potential unity of the work of art and loss compensation appear following the arguments made by Brandi during his twenty years directing the ICR of Rome (1940/60). For the quotation, see: Brandi, 1977, p. 17.

16 According to some Giotto scholars, this would have given an evangelical significance to the scene according to which, Saint Francis, with the Stigmata, would have become a reflected image of Christ. The painter or his patrons could have taken inspiration from the text of Saint Paul referring to the Christian who "beholding as in a glass the glory of the Lord, are changed into the same image" (2 Corinthians 3:18). In this sense, Saint Francis appears as the reflection of the Crucifix, because of this the play of rays follows the manner of a reflection: from the right of the Seraph to the left of the Saint and also from left to right. Galili, 2013, p. 283–296. We must note, though, that in the various contemporary and earlier representations of the subject, often the direction of the rays changes with respect to specular play and, in effect, in the texts of the Franciscan sources, there is no reference to the text of Saint Paul.
of the later additions was not complicated, nor did it cause any damage. As for the main rays, we reconstructed them in length and width but not in thickness, using only glazes of mica watercolors.\textsuperscript{17} We must remember, in fact, that Giotto had used a double metal leaf of gilded tin; by using only mica, we therefore avoided a mimetic reproduction of materials and guaranteed the detectability of our work while reaching the desired aesthetic effect of a shiny line though in a more muted tone with respect to that obtained with gold leaf.\textsuperscript{18} For the minor rays, whose original presence is shown by the incisions, but whose width is unknown, we were limited to indicate the path corresponding to the few remaining dark traces from the use of the tin laminate.

![Figure 8 a and b. Suggesting the rays using micas watercolors (Photo Credits Latronico per OPD)](image)

Both from a practical and theoretical point of view, the resolution of the remaining problem was more difficult, that is, the issue of keeping or substituting the arms and portions of the hands of the Seraph/ Crucifix, made, as described, in an approximate and inadequate way but whose presence in the figural narrative was, in our assessment, essential for granting a coherent vision of the entire composition totally concentrated on the presence of the two figures.

\textsuperscript{17} The width was determined thanks to the slight depression left by the loss of the original gold on the underlying paint layer.

\textsuperscript{18} With mica in watercolor pans: Iriodin® Merck; Kremer pigmente GmbH&Co. See: https://www.kremer-pigmente.com
In addition, thanks to cleaning away the nineteenth-century fills on the borders, some original fragments belonging to the hands and edges of the arms of the Crucifix came to light, making it difficult to preserve the reconstructions toning them to match chromatically with the surrounding painting as we had for the reconstructions in the frame. The discovery, on the other hand, motivated us to explore the possibility of making a new reconstruction, based on these important and unseen elements.

As the rediscovered fragments by themselves did not present enough indications for a total reconstruction for the sections of missing arms, it was necessary to refer to historical comparisons, tied to the modus operandi of the bottega of Giotto, as seen in the Giottesque worksite at Assisi and also for his major creations on panel.\(^{19}\) This research focused on the phase of planning the painting, that is on which system Giotto would have used to ensure a consistent and high quality creation, though using a variety of helpers. Both for the Assisi mural painting and for the panel paintings, the use of *patroni* (cardboard templates) have been found to create the heads. In particular, for panel paintings in which infrared reflectography allows the underdrawing below the paint layers to be seen,\(^ {20}\) by comparing different panels, both contemporary and separated by decades, it has been verified that the contours and many drawn details inside the figure can be superimposed, suggesting that actual cartoons are reused. Giotto's bottega therefore had available a rich repertoire of drawings on paper that could be reused over time for different paintings that ensured the final product which then, with painting, could be given various qualities. This discovery reinforced our research on the work of Giotto at the time of the Bardi Chapel, for analogous elements, useful to reconstruct the lacuna of the arms, with the conviction that also in this case the artist could have used a cartoon or *patrono* used elsewhere. Naturally, the surviving original fragments of the arms of Christ/Seraph and their anatomical shading have served to sustain or negate the likelihood of this working hypothesis. Therefore, our attention was directed to the figure of Christ on the Crucifix of Ognissanti, restored a few years ago at our own Institute.

![Figure 9. Giotto's Crucifix painted for the Church of Ognissanti in Florence (Photo Credit: Cinotti OPD)](image)

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\(^ {19}\) Zanardi, 2002.

\(^ {20}\) Bellucci & Frosinini, 2010. pp. 167–177. Here, for example these are compared by attempting to overlay them: the drawing of the face of the Madonna di Borgo San Lorenzo and that of San Giorgio alla Costa or those for the Christ of the Croce of Santa Maria Novella and the Crocifisso of Ognissanti.
With digital imaging processing we were able to make various tests to evaluate possible reconstructions. Early on, it was found that it would be impossible to use a simple mirror image of the left arm of the Seraph/Crucifix. Therefore, we moved on to check the feasibility of using the right arm of Christ from the Ognissanti Crucifix. The drawing of this, obtained with reflectography, was examined and compared with the image of Santa Croce; then the modeling of the hands was compared, and thus we arrived at a digital reconstruction of a possible suitable solution. From a printed image of the arm reduced to the right scale, a *spolvero* was made to transfer the design to the new fill; and finally, with the method of *selezione cromatica*, it was possible to obtain the shading of the flesh tones of the forearm and hand. The same procedure allowed us to reconstruct the left hand that was painted as if it were open in the previous restoration, while now it is shown slightly closed, according to the more traditional iconography of the Crucifixion that is found, in fact, also in the example of Ognissanti.

![Figure 10 a and b. Reconstruction of the missing parts with the technique of selezione cromatica (Photo Credits Latronico OPD)](image)

As is known, *selezione cromatica* is a way to allow the reintegrated areas to be recognized as such and using watercolors as the medium consents an easy reversibility whenever a future critical vision wishes to develop a different solution. (See Figure 2)

In conclusion, we can affirm that this choice of reconstructing a significant lacuna from the figurative point of few was dictated by a kind of analogic/philological process justified by the necessity of substituting reconstructions that were deemed unacceptable in the context of Giottesque painting. The solution was a fruit of a much broader study on the working methods of the artist. The resolution should be considered as a unique case relative to this specific context, able to reconcile aspects that are important to the interpretation of the image for the recovery of its original iconography, and for the requirements for the completeness of the representation particularly associated with its religious surroundings.

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21 The survival of a small fragment of a finger of the right hand provided a precise edge for positioning the reconstruction.

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**Site information**

http://www.santuariodelibera.it/FontiFrancescane/fontifrancescane.htm.

https://www.kremer-pigmente.com/it/
ETHICAL CHALLENGES IN THE CONSERVATION OF THE WALL PAINTINGS OF CHAPEL 11 AT THE SACRO MONTE DI VARALLO

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Abstract: Chapel 11 is one of the 45 chapels of the Sacro Monte di Varallo. It is decorated with 16th century polychrome terracotta statues and wall paintings representing the Massacre of the Innocents. Since 2015, the University of Applied Sciences and Arts of Southern Switzerland (SUPSI) is in charge of its conservation. Up-close examination of the wall paintings allowed to observe the presence of overpainting, which were evaluated to have no aesthetical and/or technical quality. During the study phase and with preliminary tests for treatment development, it became clear that the removal of this overpaint was risky for the underlying original decoration. Moreover, it was not possible to determine if under the overpainting there was the original layer and in what condition it was. Although IR Reflectography showed the presence of underdrawings, this information did not always coincided with the presence of a paint layer. Considering that the overpainting covers about 80% of the surface, SUPSI strongly advised against embarking on its removal. This conclusion was achieved after several removal attempts and through regular communication meeting with the stakeholders aimed at illustrating the situation and the results achieved. SUPSI considered more ethical to focus on the development of a 'reversible' stabilization intervention considering that in the future new technologies (to assess the presence of paintings below and to remove overpainting) could make the recovery of what remains of the original decoration easier.

This paper describes the project in terms of the ethical challenges faced when conflicting expectations about the project arised.

Keywords: Sacro Monte Varallo, overpaint, uncovering, ethical challenges, values

1. Introduction

During the conservation project of the wall paintings of the Chapel 11 at the Sacro Monte di Varallo, many issues related to conflicting values impeded to reach an agreed decision
about the conservation approach to be adopted. It was difficult to find a rationale compromise that could be shared by all the project stakeholders about the removal of the 20th century overpaints, which cover extensively the wall surfaces.\footnote{The definition of overpaint in EwaGlos: “Overpaint: a painting layer which partially or completely covers the original painting layers of an art work”. (Weyer et al. Eds., 2016, p.176). In our case these added layers also cover areas without original paint.}

Varallo is located in North-West Italy and in 2003, together with other eight Sacri Monti, has being recognized from UNESCO as a world heritage site (Fig. 1).\footnote{See: https://whc.unesco.org/en/list/1068.} In the form of a small citadel, built on the top of a hill and integrated into a beautiful natural landscape, it is composed by 45 chapels, as individual blocks or groups, a basilica and other buildings forming suggestive architectural spaces. The chapels are dedicated to representing – like in a living theater, with life size sculptures surrounded by scenographic wall paintings – different episodes of the life, passion and death of Jesus, from the Annunciation to the Crucifixion. The visitors see these scenes through a wooden or a metal grate (Fig. 2), filtering the vividness of the representation and inviting them to look carefully inside to catch the dynamic of the event (De Filippis, 2009).\footnote{See also: http://www.sacromontedivarallo.org/wp/.

Fig. 1 View of the Sacro Monte di Varallo. Varallo is located in North-West Italy and in 2003, together with other eight Sacri Monti, has being recognized from UNESCO as a world heritage site.

The Sacro Monte was founded by the friar Bernardino Caimi in 1480, to re-create a site where the pilgrims could become part of these episodes with a strong emotional and
educational objective. Varallo became a model for the other Sacri Monti that followed. Here between the 16th and 17th century, the most prominent artists of Northern Italy, painters and sculptors like Gaudenzio Ferrari, Bernardino Lanino, Galeazzo Alessi, Tanzio da Varallo, the Fiammenghini, and the Morazzone, were involved in the decoration of the chapels, leaving extraordinary examples of their work, now constituting a unique cultural heritage.

2. Context

The SUPSI (University of Applied Sciences and Arts of Southern Switzerland), with its master’s degree in conservation-restoration, was engaged in the conservation of the Sacro Monte since 2012. The university, supported by the Isabel und Balz Baechi Foundation, conducted a conservation project for chapel 12 The Baptism of Christ and then for chapel 41 The Deposition of Christ in the Shroud. All these conservation-restoration interventions have been developed as part of the university education activities with the students of the last year of the Master program in conservation of wall paintings. In 2015, the Isabel und Balz Baechi Foundation proposed to engage in a larger project, promoting the conservation of one of the most prominent and large chapels of the site: The Massacre of the Innocents. This is one of the isolated chapels surrounded by trees, with a floor plan measuring six meters by seven and it its eleven meters high. It contains 71 terracotta statues that continue three-dimensionally the scenes depicted on the walls, enhancing the realism of the representation (Fig. 2 and Fig. 3).

Fig. 2 View of Chapel 11 representing the Massacre of the Innocents. Visitors and pilgrims can see the chapel only through this metal grate.
This chapel was built on an initial project by Galeazzo Alessi (Book of Mysteries 1565-1569) under the patronage of the Duke of Savoy Carlo Emanuele I. The construction began in 1586 with the supervision of the brothers d’Enrico from Alagna (a nearby village). The walls were painted in 1590 by Giovanni Battista della Rovere and his younger brother Giovanni Mauro (better known as the Fiamminghini brothers). They were talented and requested painters, very active between the 16th and 17th centuries, authors of decorating cycles in several important churches in the north of Italy and many chapels of the Sacro Monte in Orta. The terracotta statues were made in 1591 by Michelangelo Prestinari, an artist working at the Cathedral in Milan.

Three years after completion, the Bishop Carlo Bascapé asked the same sculptor, to add 30 statues of massacred children and to modify the throne of Herod (Fig. 3).

Fig. 3 View of interior of Chapel 11.

The project for the conservation of Chapel 11 was developed and implemented following a methodological approach that is extremely important, considering that this was also a practical fieldwork education for the students in conservation. The conservation process starts with understanding the significance of the chapel in its different aspects and gathering all the information necessary to assess its condition conducting visual and scientific investigations. It then proceeds with establishing a concept for the conservation discussing treatment options. The implementation of the intervention, as part of an entire conservation process, allows to define a post-treatment monitoring and maintenance plan, required to prolong the results of the conservation intervention (Burra Charter, 2013; Piqué, 2010).

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4 On Giovanni Battista and Giovan Mauro Della Rovere see: Caviglioli, 1989.
The assessment phase is fundamental and, considering the dimension and the heterogeneity of the materials of this works of art, it took an entire year to study the decorations, understanding the conservation problems and their activation mechanism.  

The stakeholders involved were, as for the other works in Varallo, the Municipality as formal owner of the site, the *Ente di gestione dei Sacri Monti* responsible for the managing of the site -in the person of its director- and the local *Soprintendenza*, responsible for the supervision of the works and for approving conservation decisions. The steering committee was composed by Elena De Filippis, director of the *Ente di Gestione*, an art-historian involved for several decades in the study and in the conservation of the site, and a conservator-restorer from the *Soprintendenza*, Emanuela Ozino Caligaris as technical supervisor. From SUPSI the project was coordinated by the authors: prof. Giacinta Jean, architect and responsible for the conservation-restoration study program and by prof. Francesca Piqué, conservation scientist, responsible for establishing the technical and scientific decisions.

### 3. Gathering information

All the written documentary sources were collected by Elena De Filippis, who consulted printed and archival information (documents, photographs and prints), giving an important background about the execution of the decoration and the physical history of the chapel. SUPSI conservation team studied the material and the condition of the statues and of the wall paintings. Visual examination confirmed that over the centuries all the decorations have been extensively repainted on several occasions. Just few of these interventions were documented, not even the last one which was done by the painter Emilio Contini in 1955, after his retirement as director of the Sacro Monte (Fig. 4).

![Fig. 4 Portion of wall paintings in the vault of Chapel 11 photographed in visible and UV light. From the scaffolding the heavy and extensive overpainting is clearly visible particularly in UV light due to the high UV induced fluorescence of some of the paint components.](image)
Only few areas with the original paintings by the Fiamminghini brothers remain. They are realized with a mixed technique with portions applied a fresco and/or with lime binder (typically the architectural background) and portions painted a secco with an organic binder for the application of pH-sensitive pigments, such as azurite and malachite, and for metallic layers, e.g. for gilding. The organic binder was studied by FTIR and found to have a lipidic composition. On the statues the layers are applied with lipidic binder on the porous terracotta, previously primed with oil and a lead pigment, probably lead white, added as a siccative. (Piqué et al., 2016)

The 16th century wall paintings – with their delicate surface due to the original technique– are very fragile. The overpainting, done directly on the original surface, in many areas damaged the weak finishing layer, mixing its powdering pigments with the new paint. Both original and overpainting had several conservation problems such as paint flaking, plaster powdering and delamination, and significant surface accumulation of dust. In some areas the overpainting were flaking and detaching from the support, pulling the original layer.

The agents and mechanism of deterioration are closely linked to the semiconfined environment affecting both the statues and the wall painting. Environmental monitoring showed that the daily and seasonal changes of the outdoor air temperature and relative humidity directly influence the interior parameters. In addition, the chapel had suffered by roof water infiltrations, particularly on the north wall, by the typical problems related to the presence of soluble hygroscopic salts, and by small animals nesting inside that chapel.

Beside the conservation problems, an important issue was the presence of the different overpaints covering the walls and the statues. Because of the easy access, the statues were cleaned and retouched on a regular basis and now practically no original paint remains underneath, due to the practice of carefully scraping, performed before the application of new colored layers. On the wall paintings, more difficult to reach, it was possible to recognize at least two major interventions, one carried out in the second half of the 19th century in order to stabiles the surface and one in 1955.

The desire to recover the original Fiamminghini paints, improving the aesthetic aspect of the wall paintings, was an expectation for some of the stakeholders. In order to take the decision to perform this invasive and irreversible intervention on the walls it was necessary to determine:

1. the extension of the original areas (both visible and covered);
2. the extension of the overpaints and their significance;
3. the technical possibility of removing the overpainting and retrieving the original layers without damaging it. This also allows to understand the condition of the underlying layers.

The extension of the original areas (both visible and covered)

The conservation team examined the entire surface with different illumination (visible, incident and racking, and UV light) to determine the extension of the surviving original paint. This was
a difficult task considering that over 80% of the surface was covered by overpainting which was often heavy and thick (Fig. 5).

Fig. 5 Visual examination showed that over 80% of the surface was covered by overpainting which was often heavy and thick and is indicated in red in this map.

It was not always possible to understand in which areas the heavy overpaints were covering the original layer. In racking light, the team could distinguish between flat surface and irregular/abraded plaster. In the abraded areas it was logical to suppose that the visible paint was filling areas of loss. Investigations with IR reflectography would show the presence of underdrawing but this could not confirm the presence of paint layers. It became clear that the only mean to determine if there were original painting was to remove the overpainting. The conservators carried out several uncovering tests to determine both if there was an original layer and if it would be possible to safely retrieve it. The ‘promising’ test areas were selected based on historical photographs taken before the intervention of Contini in 1955, showing good conservation condition of the decoration. In some of these areas, it was possible to rediscover lost details but in others only large losses were revealed (Figs. 6 and 7). In addition, the removal tests disclosed the difference between the original colour scheme and the current one (visible also in cross-section). This was especially noticeable in the architectural background were the original paint had ice gray cold tones while the overpaint had a much warmer one.
Fig. 6 Overpainting removal test in the architectural portion on the vault. The test revealed that no original paint was present underneath.

Fig. 7 Overpainting removal test in the architectural portion on the north wall. In this case, the removal of the overpaint revealed the head of a child, which was visible in an historical image.
Extension and value of overpaints

The investigations showed that the stratigraphic situation varies a lot and that it is not possible to predict how much original is under the repainting and of course in which condition it is. The map in Fig. 8 illustrates in blue the areas in which the recovery of the original layer was considered unpredictable.

Fig. 8 The thorough examination of the paintings combined with local overpainting removal tests enable the team to summarize the situation in graphic form. The red areas indicate no original paint; yellow indicate areas where the original paint is present, but it is difficult to recover; while the blue indicates the unpredictable areas. The rest, in white, is where the original paint is visible (no repainting is present).

The overpaints modified and disfigured the original, covering it in many places while in others filling and completing areas of loss (i.e. without original paint underneath). Particularly at the base of the walls, around the throne, but also on the vault, large parts of the scenes were missing. These interventions had not the aim of preserving the original. Emilio Contini did not appreciate and respect the work by the Fiamminghini, for him they had no value and could be repainted and completed to give a more appealing look to the chapel, that at the time was in bad repair condition. He also inserted new people and changed the tone of the paintings. It was not a restoration work but a gritty remake and even if over 60-year-old, it is hard to assign to this any significance.
Removing the overpainting and retrieving the original layers

The preliminary tests also aimed at evaluating the technical feasibility of removing the overpainting and assessing the effect of the intervention on the original layer. Tests were carried out with different solvents mixtures supported in a gel form. Evaluation was done visually. The removal was easy in areas where the original paint is in a fresco technique, but it was difficult in the area a secco due to the similarity of the painting technique of the ancient and of the new layers. Considering the impossibility to determine the underlying condition and technique of the painting, the removal of overpainting was technically difficult, and it was easy to put the original paintings in danger.

4. Discussion

The investigations showed that topographically the situation varies a lot from one point to the other. It is not possible to predict if and how much original is under the overpainting and in which condition it is.

From the technical point of view, it was easy to decide not to remove any of the overpaint. However, it was difficult to take this decision because of the expectations created at the beginning of the project, which is seen by some of the stakeholders as the opportunity to recuperate and disclose the Fiamminghini paintings.

The situation was very complex, with no clear right solution while any option of intervention would put values (artistic, historical, scientific, devotional, didactical …) in conflict.

In addition, any decision that would have changed the appearance of the wall paintings would had an impact on the statues: the interior decoration is an entire work of art and must be treated as a whole. It was not possible to decide to preserve the actual paint layer on the statues and change the colour tone and increase the number of lacunae on the wall paintings. The religious value of the site has also to be considered (about 60% of the visitors are coming to the Sacro Monte for pilgrimage, not for visiting an historical monument in which an "archaeological" restoration could have been acceptable).

Discussions rotated around three possibilities:

- preserve the situation as it is (with the overpaints);
- remove all the overpaints;
- remove the overpaints only when covering the original layer and where technically possible.

Preserve the situation as it is

This option means to preserve a paint layer sometimes unpleasant but over 60 years old and not visible or disturbing from the distance of the viewing grate. In the future, new technologies could provide the possibility to better understand the situation, particularly in term of the presence of underlying original paint layers and make a more informed decision
of where - removing the overpaint - the original would emerge (avoiding a casual “scratch and win” approach).

In the meanwhile, to preserve the layers from detaching, methods to stabilize the overpaintings allowing retreatability were developed (Piqué et al., 2017).

**Remove all the overpaints**

Recovering the *Fiammenghini* would definitively enhance the artistic and aesthetical value of the painting as shown by the successful preliminary tests, where rich and expressive details were revealed. However, this option implies the complete removal of historic layers and it will potentially endanger the original underneath. It would also expose large areas of lacunae, which in turn would require addressing presentation, and the tone of the original paintings would contrast with that of the statues (for which the absence of the original made the question of overpainting removal a mute one).

In addition, with the techniques and materials tested, the removal of the overpainting is a delicate and long operation. The chapel will need extensive retouching after removal of the overpainting. This option will necessarily require large amount of resources (in terms of time and money) that at the moment are not available.

**Remove the overpaints only when covering the original layer in good repair condition**

Remove the overpaint when covering the original surface (in good condition) or reduce it on the missing parts was an option difficult to put in practice for three main reasons: first because it was not possible to predict where the original layer was still existing under the overpaints, second because it was not possible to use selective cleaning methods to gradually understand the condition of the original surface and third because it was considered by the conservator-restorers of the team as an arbitrary solution, as each professional would have preserved, removed or reduced a layer according to his/her personal judgment and the intervention would have missed an overall uniform approach, the “unità di metodo”.

Laser cleaning using several different instruments was also tested showing encouraging results for its very selective and gradual uncovering. This intervention however is very expensive and the available budget – generous but not immense – would not be sufficient to cover all the expenses related to this long and complex operation and to all the retouching needed for the final presentation. New founds would have to be provided.

### 5. Conclusions

This project was a first-hand experience of how much changing aesthetic values predominate over other values, especially over the scientific and historic ones. It was difficult to reach agreement, as for many stakeholders the recovering of the artistic value embedded in the *Fiammenghini* painting was fundamental even if the original painting scheme would have

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6 Laser cleaning tests were carried out by Anna Brunetto.
been incomplete, altered and even if removal of overpaint could cause the removal and/or endangering of the original ones.

It is difficult to have a cautious approach when the expectations about the results of a conservation-restoration intervention are to recreate an image corresponding with our contemporary visual culture, removing layers of overpainting that are disturbing and now considered ‘the ugly ones’.

During this project emerged the different point of view in assessing the need to remove all or some of the overpainting, in assessing the technical feasibility of the intervention and, last but not least, in assessing the sustainability of our actions in terms of investments of resources. It was clearly difficult to manage conflicting values and find agreement in the practical application of fundamental conservation principles.

Aknowledgements

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Author Contributions

This article has been prepared, written and discussed in collaboration by the two authors.
Bibliographic References


Lucio Fontana’s collaboration with architects, which continued to progress over the entire period of his creative experience along with his more famous artistic and spatial production, offered important opportunities for experimentation and research. The artist worked with architects such as Luigi Figini, Gino Pollini, Giò Ponti, Luciano Baldessari, Marco Zanuso, Osvaldo Borsani and Ico Parisi, and it was actually the architects who first intuited the innovative scope of his research. It involved works of a temporary nature carried out for exhibitions, trade fairs and celebrations of historical events, some of which went missing at the end of the events, but also some that became an integral part of extant architecture. Indeed, the artist made numerous environmental works for public buildings, hotels, cinemas and private homes, using traditional materials such as ceramics, mosaics and plaster, as well as new media such as fluorescent colours, black lights, neon lights, and more. As often happens, and as needs and tastes changed, the works were decontextualized and assumed a different connotation.

Here below is a description of the choices made during three of the seven restorations we carried out in the last few years on environmental works created by Fontana between the mid-1940s and the end of the 1950s, which were taken from their original location and moved to new sites.

Keywords: Environmental work, decontextualization, recontextualization, supporting structure

1. Introduction

Modern and contemporary artworks raise a number of issues, both practical and ethical, as to their preservation, their originality, authorship and reproducibility. For many years, museums and cultural institutions have been working towards a definition of universal protocols dealing with the conservation and presentation of complex contemporary artworks and have begun to explore the relationship between artwork production and restoration policies focusing on artworks’ historical and critical considerations. Indeed, the 20th century was the first historical period in which art production and an attempt to deal with its conservation in a philological manner took place contemporaneously, as the methodology choices linked to conservation
enjoy the indisputable advantage of being linked chronologically to the creative act of artists. In previous centuries as well - in almost all texts dealing with art history, commissioning clients, and the art market -, close attention was paid to the concept of conservation, restoration and authenticity, but their interpretation was not always unequivocal, and over the centuries these concepts have been linked in very different ways, depending on the changes taking place in social, political and religious arenas.

Artworks have often been removed from their original contexts, each time taking on new connotations. How can we ensure that these same passages do not lead to the loss of their original values over time? It is for these reasons that it appears increasingly important to understand what the true fundamental values of a work are and, even more than in the past, that it becomes necessary to recognise these values in order to conserve them.

2. Case Study I

The first case study concerns the architectural collaborations to build and create Cinema Arlecchino, which opened in October 1949 in via San Pietro dell’Orto in Milan. The post-war reconstruction was going forward very quickly, and the collaboration among painters, sculptors and architects, envisioned by Le Corbusier in 1947, had become reality. Fontana, who had returned to Milan from Argentina only two years earlier, wrote to his brother: “If only you could see Milan: it is something wonderful. It looks like an immense building site.”

As requested by the owners, Cinema Arlecchino was meant to be small and intimate, more a club than a simple cinema. It was to include approximately 400 seats to watch first-run films at set times. The project was given to Architects Roberto Menghi and Mario Righini, who then requested the collaboration of Lucio Fontana and Piero Fornasetti.

Hanging from the ceiling, at the entrance to the cinema, a “Harlequin” sculpture by Fontana welcomed the movie-goers. (Fig.1) As Paolo Campiglio wrote in one of his essays, “Harlequin is the symbol of regained freedom, an homage to the cunning and power of irreverent laughter against all the restrictions imposed by the powers-that-be.” The entryway walls and those along the stairways leading to the floor below were decorated with a diamond pattern inspired by Harlequin’s costume, as were the floors made of white Candoglia and black Belgian marble.

The lounge area between the stairs and the screening room were decorated by Fornasetti: panels printed with scenes from Harlequin’s life covering the pilasters and a stained-glass window above the bar. Inside the screening room with its brightly colored seats was Fontana’s enameled ceramic bas-relief, “Battle”, attached to the wall below the screen. (Fig.2) Using ceramics as a sculptural fourth dimension was not new for Fontana, who had

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3 Campiglio, Paolo (editor), Lucio Fontana l’Arlecchino, Charta 2010 , p. 41.
begun experimenting with new approaches to sculpture at the Albissola kilns in the 1930s. In a 1939 article that appeared in the newspaper, “Tempo”, Fontana said, “I’m a sculptor and not a ceramicist. I have never thrown a plate or painted a vase. [...] Fire was a kind of intermediary, perpetuating the shape and colour. [...] The critics said ceramics; I said sculpture.”

Fig. 1 Cinema Arlecchino. In: Domus, no. 231, vol. VI, 1948, p.18, Courtesy Domus
Fig. 2 Projection room at Cinema Arlecchino. In: Domus, no.231, vol. VI, 1948, cover, Courtesy Domus

After an injunction to close the cinema because the small projection room did not meet local safety laws, in 2009 the owners decided to rent out the space and remove the artworks that had decorated the cinema from the beginning. Once they were removed from their original context, what would their destination be? As regards the Harlequin sculpture, we were asked to design a framework that made it possible to anchor it not to a ceiling but to a wall. As soon as it had been removed from the ceiling, to which it had been attached with hooks inserted into “eyes” set into the cement-like back, we realised that the artist had originally planned to backlight it with 9 lightbulbs set along the entire perimeter. The new way of presenting the artwork, vertically instead of on the ceiling, would eliminate part of its original concept, returning its sculptural quality but not its essential link to the architecture of the cinema. Therefore, after proceeding to the usual restoration procedures on the sculpture, we designed a system with Equilibrate Srl that will permit its attachment either to a wall,

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4 Fontana, Lucio: “la mia ceramica”. In: Tempo, 21 settembre 1939.
as requested by the owners, or to a ceiling, as originally intended, also permitting smooth handling in the assembly and transport stages, something of no small importance that is often overlooked. At the conclusion of our work, the piece was displayed at the Claudia Gian Ferrari Gallery in Milan, and again in April 2018 it was presented at an exhibition in Brescia where, in both cases, unfortunately, it was hung not on the ceiling but on a wall. (Fig.3)

Fig. 3 Lucio Fontana, Arlecchino, Galleria Claudia Gian Ferrari, Milan, 2010, Courtesy of Fondazione Lucio Fontana

More complex was the removal of the large ceramic bas-relief, and the planning and implementation of its new support structure. As already pointed out, the bas-relief composed of 7 blocks following the curve of the wall behind the screen was set into the cement of
the load-bearing structure behind it. After removing the individual blocks, having previously created a fitted form of foam rubber, a structure was built with the same curvature as the wall it had been attached to at Cinema Arlecchino. On the back of the blocks, anchoring points attached the framework to adjustable brackets. In this case as well, the structures were planned in such a way that they can be easily handled, assembled and kept in crates. (Fig.4)

![Fig. 4 Lucio Fontana, Battaglia, Galleria Claudia Gian Ferrari, Milan, 2010, Courtesy of Fondazione Lucio Fontana](image)

The bas-relief, purchased by Fondazione Prada, is now displayed at the foundation cinema, but not in the screening room. Furthermore, the supporting structure that followed the original curve of the wall behind the cinema screen was replaced with a new structure that anchors the bas-relief parallel to the wall. Thus, although once again in a cinema, it has lost its original function. During the cleaning phase, we unexpectedly discovered that some sections were originally painted with fluorescent colour, such that when the lights went out, “Battle” was lit up by Wood’s lamps interacting with the fluorescence. (Fig.5) Thus the work carried out on this environment gives witness to the fact that Fontana, a year before his famous environment with black light at the Naviglio Gallery, had already used this new medium in an artistic sphere. Unfortunately, there are few remaining traces of this fluorescent colour, both due to their natural deterioration and probably to cleaning operations carried out on the surfaces, due to ignorance of the presence of these very delicate areas painted after the firing.
3. Case Study II

Another restoration project we dealt with was the removal of a ceiling created by Lucio Fontana in 1956 for the dining room of the Hotel del Golfo on the Island of Elba, as it risked destruction in the refurbishment of the building. (Fig.6) The artwork, which measures 150 square metres, consists of incisions, cuts, slashes and applied materials in the fresh plaster of the ceiling.

Thanks to the intervention of Fondazione Fontana, which was necessary due to the absence of legislation preventing the destruction of the work (as it was classified as being too recent to be protected by Cultural Heritage legislation), the Department of Architecture and Contemporary Art for the Ministry of Cultural Heritage purchased the work, committing to the care and conservation, as well as the revalorisation of this masterpiece. The options of utilising the strappo or the stacco methods to remove the ceiling were rejected because the reliefs and incisions characterising the work affected the entire depth of the plaster structure.

Direction of works: Carlo Birrozzi, Matteo Ceriana. Caterina Bon Valsassina (Ministero per i Beni e le Attività Culturali, Direzione Regionale per i Beni Culturali e Paesaggistici della Lombardia), Marina Pugliese (Comune di Milano, Museo del 900), Nini Ardemagni Laurini (Fondazione Lucio Fontana). Planning: Barbara Ferriani, Cristina Vazio, Paolo Rolli, Gianni Gambaro, Fabio Meroni. Working team: Barbara Ferriani srl, Cristina Vazio S.a.s. with Gennaro Costruzioni and Zime Srl.
For this reason, we decided to employ the *stacco a massello* technique. The work was divided into 25 panels (sections of 2 x 3 m) cut according to a grid plan that would save, as far as possible, Fontana’s “marks”, and that took into account the limitations presented by the original reinforcement of the supporting structure as well as the dimensions and weight of the panels required in order to facilitate their future transport. In the initial phase of planning, during which restorers, architects and structural engineers were all involved, graphic reliefs, both photographic and photogrammetric, were carried out so as to create a computerised model that could be used in the simulation of the various stages of the detachment process.

The first phase of the treatment consisted of *facing* the surface with the application of a cotton gauze and protection of the sections in relief the cuts and incisions, as well as the undercuts and holes. Following this phase, supports were built beneath the ceiling: 25 counter-forms sustained by a brace-scaffolding structure. The first incisions to be made were those from below — this was done in order to avoid breaks in the plaster that could have resulted from the shifting force lines and weight-bearing points during subsequent demolition from above. Only once the joists had been identified and removed from the extrados was it possible to carry out the incisions from above in order to completely isolate each panel. Considering the extreme fragility of the work, the removal of all extra material from the rear of the panels was carried out using electric drills with diamond-tip blades. All of these actions were preceded by necessary consolidation treatments of the weaker areas, and assessments were carried
out at regular intervals. Once the thinning procedures had been completed, the entire surface was consolidated. Any cracks and breaks were filled, the backing of the piece was completed with the application of a “treatment layer” and with the gluing of the panels onto their new supports. Due to the lack of suitable supports on the market for the weight and dimensions of the panels, these supports had to be specifically manufactured. They were constructed with internal reinforcing and thread inserts in strategic positions that allowed not only for the temporary movement of the panels, but also for their final positioning in their new location. 

Once loaded onto trailers, in which scaffolding structures had been purposely erected in order to sustain the panel supports, the panels were transported to Milan where they were placed in a temporary laboratory in Palazzo Litta, the Regional headquarters of the Department for Cultural Heritage. Here, the restoration of the surfaces was started. Each panel was turned over and positioned on a mobile structure that facilitated not only the removal of the facing gauze, and the cleaning, consolidation and reintegration of the superficial paint layer, but also the realignment of the panels in order to simulate the final reconstruction of the work. In order to avoid physical stress on the panels during their repositioning, appropriate metal structures were created, allowing for the panels’ rotation to be carried out in a suspended position.

Fig. 7 Lucio Fontana, Soffitto, Museo del 900, Milan, 2010. Courtesy of Fondazione Lucio Fontana
In the spring of 2010, thanks to an agreement between the Ministry of Cultural Heritage and the Magistrate of Milan, the work was installed in a great hall dedicated to the art of Lucio Fontana in the Museo del Novecento. (Fig.7) The panels were turned over, positioned, and suspended on support structures which facilitated their transport to and lifting on the top floor of the museum. Each panel was reinforced with an intermediate frame boasting specialised attachment mechanisms that were adapted to the supporting architectural structure. Using micrometric measurements, it was possible to reposition each panel exactly as it had been prior to its disassembly. (Fig.8) The restoration of this unique piece was completed in November 2010 and is documented in a video which follows the restorers’ work.

Fig. 8 De Lonti Daniele, Lucio Fontana, Soffitto, Museo del 900, Milan, 2010, photographed during assembly, Courtesy of Fondazione Lucio Fontana

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Abstract: The need to show to the public issues related to conservation of cultural properties first became clear in the eighties during the great projects conducted in the Roman forum. Three major conservation innovations were introduced at that time: documentation became part of the contract specifications; consolidation was performed using slaked lime; the worksite scaffolding was opened to non-specialists. The way in which the documentation is realized is an indicator of the quality and professionalism of a program. This should incorporate a communication plan, to promote and raise awareness among the public about the instances related to the conservation of cultural heritage. This article addresses the communication principles applied to conservation interventions.

Keywords: Conservation, communication, documentation, aperto per restauro, open for restoration

The event of a conservation intervention offers opportunities to show and inform the public about the full range of activities for safeguarding cultural heritage. Given this premise, I hope that the "Closed for Restoration" sign will become obsolete, for all of us.

This paper tells the story of worksites open to the public, operated by the Centro di Conservazione Archeologica di Roma (CCA). It's a story that's also my own, since I've worked with this organisation since 1982.

The need to show the public the issues involved in conservation of cultural properties first became clear in the great conservation conducted in the Roman Forum during the 1980s. For us in the CCA, the project for the Arch of Septimius Severus in Rome allowed the introduction of three major conservation innovations: Documentation became part of the contract specifications; consolidations were performed using slaked lime; visits were offered for the non-specialist public.
Fig. 1 1980-82, Arch of Septimius Severus in Rome: as a superficial protective a lime wash was use (CCA photo)

Fig. 2 1980-82, Arch of Septimius Severus in Rome: two examples of documentation panel (CCA photo)

Fig. 3 1980-82, Arch of Septimius Severus in Rome: guided tours were organized bringing visitors on the scaffolding (CCA photo)
In fact, the worksite hoarding was opened to the broadest possible public. These new aspects were not independent of one another. Instead they were interconnected and descended from a single unifying philosophy. The insertion of contractual terms requiring documentation arose from our observation of the need to evolve beyond an antiquated vision of conservation-restoration, under which professionals would attempt to keep their 'recipes' hidden. Documentation of a conservation intervention requires that we adhere to a methodology based on a clear and legible scientific approach. Secret recipes have no place in modern interventions. Instead the materials used should be shown and explained to the public. In our case this means choosing of materials from among those used in historic techniques of execution, and proven by time, such as slaked lime. The use of slaked lime in consolidation interventions is based on the principle of using materials compatible with the original ones. The same applies to the use of lime wash as final protection for the surfaces. Although this technique has caused unfavourable reaction from other professionals, such an attitude is largely due to inexperience. Through the choice of an appropriate concentration of lime wash, we obtain optimal protective layer, sufficiently covering to seal any microfractures. Related to these first two innovations was the final one, of showing the worksite activities to the public, including the application of a lime-based protective layer on deteriorated surfaces. Thus, we decided to open the worksite for the Arch of Septimius Severus (Nardi, 1984) to the public, along with other conservation worksites in the Roman Forum. The articles appearing in the newspapers of the day serve as the measure of public reaction, and the success of the initiative.

These conservation projects of the 1980s established a distance from the presentation of conservation-restoration as an activity conducted on the basis of secret recipes, exclusively by experts, far from the public eye. The transformation was enormous. Even though it was not immediately clear, we were seeing the first steps in clarifying the conceptual differences between restoration and conservation, as expressed in our terminology (ICOM-CC, 2008).

In 1990, during conservation of the Capitoline Museums atrium, the CCA decided to maintain access to the entire space. To invite the public in, we painted a hoarding with openings for viewing, and set out signage: by simply walking around, the visitors arrived at the conservators, at work. Our aim was to stimulate the curiosity of individuals approaching the museum entrance, offering a welcome to the worksite in action (La Rocca 1994). Also, on this occasion, the museum visitors were asked to respond to a survey intended to measure their interest in a museum activity that was now carried out in public view, for the first time.
Fig. 4.9 dic 1994, Il Messaggero, the Rome newspaper: “For the first time in Italy the ‘Audience of art’ is questioned. At the Capitoline Museum a survey on restoration”

Our intention was to call public attention to a museum activity which until then had always been conducted behind the scenes. There was not a single critical response to the survey questions, and in fact all the responses were enthusiastically approving. With this event, a guiding concept was becoming ever clearer: The public is part of the museum, and those who work in museums must work with the public.

One year later, in 1991, ICCROM added a new statutory mandate: “To support initiatives that increase public awareness of conservation and restoration of cultural property”. (de Guichen, 2009) Now, an international organisation recognised the key role of the public in the conservation and cultural production processes. It was at this time that Gaël de Guichen organised the ICCROM "Media Save Art" campaign, a global participation project that marked an epoch. In 1996, Gaël de Guichen received the Keck Award, the IIC’s greatest recognition, in consideration of this work.

These first attempts at public involvement in the conservation of our public heritage raised the question of accessibility (Semeraro 2009), but we were still in the years in which our ‘only’ objective was to capture public attention, in particular concerning a little-known aspect: the fragility of this heritage. In 1997, at Masada, Israel, we developed coloured panels to capture
the attention of the tourist visitor, enlivening the monotone desert and offering worksite access. Once again, our observation was confirmed, that people consistently appreciated the possibility of seeing and understanding what once typically invisible activities were. Here, the conservation worksite again emphasised our special message: Masada too was fragile, in fact extremely fragile (Nardi, 2009).

In 1999, the worksite organised for the "wounded Amazons" brought together two Roman sculptures exhibited in separate institutions: the Capitoline and Montemartini Museums. We publicised this as a unique occasion for a first-person visit to a conservation project, and to see both sculptures together.

Fig. 5 1997, Wounded Amazons: the Public was able to observe the conservation intervention live (CCA photo)
Fig. 6 1997, Wounded Amazons: the poster advertised the restoration in the exhibition, not only the sculptures!

The comments from the public gradually brought us to realise how much more our conservation projects could offer. Visitors stayed with us for hours, to watch, comment, ask questions (de Guichen, 2009). We too were gratified, to be able to chat, about how we'd become conservator-restorers, about the methods we use. But the most frequent questions tended in other directions: "Would the Amazons return like new?"; and "How long does a restoration last?" Our visitors still viewed the conservation intervention as a kind of plastic surgery: a treatment to restore beauty, to return to a prior state. We realised that we had to communicate a different message.

By the time we presented our next project to the Rome Superintendency and Capitoline Museums, we had come to realise the need to truly involve the visitors, making them an active part of the process. The year was 2000, and the restoration work was for the marble centaurs of Hadrian's Villa. This was the launch of the Aperto per restauro (Open for
A conservation project to the public requires a specific plan. It creates an interaction between museum and visitors: between supplier and consumer. Visitors welcome the chance to interact with the conservator and open up to commenting on the museum and on other heritage management systems. The museum or system can draw on this to better understand how to respond to user interests. But the conservation lab, now part of the museum presentation, must provide effective systems for visitor communication. We have to explain what we're doing, in clear, non-specialist terms. We have to keep informed of overall operations, not just our own individual activity. The laboratory walls expand, and all professionals become part of a team.

In the case of Aperto per restauro, conservators/restorers assumed an important role in making objects accessible, by promoting and guiding hands-on interaction. We organised guided visits for blind and partially sighted people. Indeed, accessibility is a key factor in successful "conservation communications".

We also organised two public contests, for best written and graphic presentations concerning the heritage conservation. The whole project received the Keck Award in 2004.

Fig. 7 2000-2002: Conservation Project “Aperto per Restauro”, Centauri Capitolini. For the first time the schoolchildren were asked to take part in a competition, taking the conservation project as their starting point (CCA photo)
On the occasion of the closing ceremony, an exhibition of all the graphic submissions was organized, and the Mayor of Rome, Walter Veltroni, awarded the prizes.

By this time, we had come to understand the error of our own professionals in feeling that conservation of public heritage is poorly understood and supported (Pye, 2001) within the other heritage professions, and by the public. It is true that environmental conservation arouses strong feelings and has been effectively communicated. But conservation of cultural heritage can do equally well, provided we take advantage of the 'levers' available to us.

In 1975, an excavation at Mont'e Prama, on the east coast of Sardinia, brought to light exceptional materials (Tronchetti, 2005). Newspapers splashed the findings on the front page; interest is high, and there is talk of conservation and display. Months, then years pass, and complaints began to surface, with overtones of Sardinian independence. In local opinion, the materials awaiting restoration have been intentionally hidden away by the Italian Ministry of Cultural Heritage. A movement against state institutions gains ground: The Monte Prama sculptures are suddenly a metaphor for the island of Sardinia, suppressed by mainland Italy.

The materials amounted to more than five thousand fragments: parts of architectural models, and especially of sculptures of warriors – archers with bows drawn, foot soldiers with shields raised above, or protecting from the front.

By the time the conservation project was assigned to the CCA, in 2007, with financing from the Region of Sardinia and the national Ministry, the rupture between the local community and the institutions was profound. To us this was ideal terrain for organisation of an open worksite. Taking a page from environmental conservation, we used modern communication methods to engage with the Sardinian public, who loved the sculptures, but felt betrayed by the institutions that had kept them in storage for more than 30 years. Planning an open worksite in 2007 wasn't as common as it is today but was accepted by the administrative authority as a public duty.

Since the turn of the century, it's become ever clearer that we've moved on from past traditions, when restoration took place behind closed doors. In 2009, even the New York Public Library showed activities once considered reserved for experts: activities that become material for general curiosity, in part because until now they've been kept backstage. But it has become clear that opening a worksite to the public is not only a matter of piquing curiosity. It's also our opportunity to communicate messages on the value of our cultural heritage.

In the course of the conservation project for the Mont'e Prama Nuragic sculptures, we organized the workplace in a manner that reproduced the original habitat of the sculptures. In effect, we transformed the laboratory as a museum display. Conservators, curators and restorers need to recognise new cultural behaviours as they develop, and to develop their laboratories in ways that draw attention to cultural heritage, through newly available channels of communication. Museum conservation serves as the springboard to spread the heritage information that today's audiences are seeking. We need to use our activities, and the information we hold, to raise awareness on concepts of fragility and heritage conservation, particularly among younger visitors.
For the Mont’e Prama project, we organised a series of activities to involve our youngest public: the visiting school groups. One of these was the "Poster I'd Like" competition, for the drawing best communicating the conservation concept. The jury included Gaël de Guichen, adviser to the ICCROM Director General and father of conservation communications.

The Mont’e Prama project received over fifteen thousand visitors over two years. A thousand of these were school students. Two hundred and fifty participated in the poster competition, and there were twenty-five thousand visits to the Project webpage. The website offered weekly progress reports, and daily counts of the numbers of reassembled fragments, in the Italian, English and Sardinian languages. The laboratory became a leading player in museum outreach. Visitors returned more than once, to follow the progress of the works and research. The webpage followed the work steps, showing: the project poster; press coverage with photographs; the works stages; our technicians' studies with the visiting sculptor, Peter Rockwell; press coverage; school visits; the project pamphlet; our educational materials; the first reconstructed sculpture; the drawing competition; virtual restorations; our survey on the best background for display mounting (Costanzi Cobau, 2014). In fact, what we showed was the many aspects of a fully formed conservation project.

By the time the worksite closed we had raised 38 sculptures to standing position, on stainless steel frameworks, reassembled from 5178 fragments. But the greatest result was having mended the break between community and institutions, thanks to mass-media
communications and project participation. The public opinion developed by our project was fundamental to nomination for the Europa Nostra Awards (European Union Prize for Cultural Heritage), for the best European conservation projects. The CCA project for the Mont’e Prama sculptures then won the Public Award for 2015.

Fig. 9 2015, the project “Nuragic Sculptures of Mont’e Prama” was awarded the European Union Prize for Cultural Heritage / Europa Nostra Awards in the category “conservation”. The award is Europe’s most prestigious accolade in the heritage field. Every year, it honours the most outstanding heritage achievements from over the continent. Panel in the Museum of Cabras, Sardinia. (CCA photo)

In that same year we launched a second project stage: changing our dirty t-shirts! I’m joking of course, but seriously, this too enters in communication, and it’s fun to design a conservation t-shirt! The real second stage, based on new archaeological discoveries, took place in summer 2015. We transformed the courtyard of the Cabras Civic Museum as our new laboratory. Our courtyard worksite was open to visitors, and one day we had the surprise of seeing one of the sculptures, then under treatment, appear on a visitor’s t-shirt! Indeed, the visages of the sculptures, nicknamed The Giants, spread through the civic fabric, speaking with their own voice. The Giants appear in tourism communications, in supermarkets, on wine labels, reaching new levels of stardom. These sculptures are
practically snapping their own selfies!

In 2015, the economic facts of the conservation operation were recognised by the business daily, *Sole 24 Ore* (Cherchi, 2015). The news here was that the Region of Sardinia was sponsoring the A Series basketball team, with the players’ uniform bearing an image of a Mont’e Prama sculptural head. When the team returns from an 'away' win, the fans cheer: "Welcome home Giants"! And the mayor of Cabras, the city where the real stone Giants are on display and where conservation works for new findings continues, has welcomed the team in an official reception. Culture, in the guise of a Nuragic giant, serves as sponsor. And the statistics prove the sponsorship value.

Between 2013 and 2015, visitation at the little Cabras Civic Museum leapt from 9000 to 69,000 visitors, an increase of 740% in two years. Proof that culture, and conservation, represent economic leverage.

A conservation intervention can transmit important messages. Success depends on careful planning, supported by diversity in the working group. One of the secrets is passion: passion for the material and its communication. And also, a pinch of fantasy, because a masterpiece can be born from each small fragment. All we need to do is discover the right language.

The Mont’e Prama conservation project functions as a team game, thanks to the archaeologist Antonietta Boninu, heart and soul of the operation. But it takes teamwork to develop a restoration worksite as a cultural event, and it takes planning to give voice to cultural heritage.
Bibliographic references


V. Interdisciplinary cooperation and communication in the field of heritage preservation and management: professional ethics and tasks

Conservator’s responsibility for deterioration of monuments
Bogusław Szmygin

Public engagement towards sustainable heritage preservation
Hélia Marcal

Conservation-Restoration and Conservation Sciences – Transdisciplinarity as a challenge
Mechthild Noll-Minor

Quality parameters in conservation-restoration choices
Maria Papadopoulous & Andromache Gazi

Professional interdisciplinary position and role of academic conservator-restorers in theory and practice
Jörg Breitenfeldt

The voice of conservation in multi-disciplinary groups
Tanja Roskar
Abstract: Over the last decades, built heritage and the conditions of its protection have changed a lot. There has been a significant increase in the number and diversity of monuments. The expectations of contemporary societies regarding the use of heritage have changed as well. As a consequence, the ownership, protection, financing and use of heritage has been privatized. These conditions should be reflected in conservation theory. Conservation theory should be realistic - it should indicate how to protect and use heritage in practice. Therefore, it is necessary to scientifically develop a modern conservation theory. The application of conservation theory which does not take into account contemporary conditions contributes to chaos in the protection of monuments and facilitates the destruction of their values. Therefore, the development of contemporary conservation theory can also be considered an ethical problem.

Keywords: Paradigm shift, heritage protection, conservation theory

Modern heritage protection is a complex and difficult task. Many historical sites are being destroyed and this worrying issue draws particular attention. However, at the same time, the limits of conservation interventions into historical sites are being pushed further and further. In many cases it is even hard to tell if the undertaken actions still belong to heritage protection\(^1\). There are many examples of such activities all over the world. The numerous examples show that objects recognized as heritage and protected accordingly may lose their historical value and context. Therefore, critical analysis of the quality of modern heritage protection is necessary\(^2\). It is a very important ethical aspect of heritage

\(^1\) An example of a very controversial activity in heritage protection is facadism. An analysis of this phenomenon on a European scale is presented in the publication – *Facadisme Et Identite Urbaine. Facadism And Urban Identity*, Centres Des Monuments Nationaux, Paris 2001

\(^2\) A good example of activities shaping and popularizing the right forms of monument protection is the "*Well-preserved Monument*" campaign in Poland. This is a nationwide competition organized by the National Heritage Board, which supports and promotes appropriate forms of protection of various typological groups of monuments. - *Well-preserved Monument. What does it mean?*, Iwoana Liżewska (ed.), National Heritage Board, Warsaw 2015.
protection in the twenty-first century. This should become a topic of a debate among the conservation community. It is the responsibility of the International Scientific Committee Theory of Conservation and Restoration to elaborate this matter.

The background to the debate on the quality of modern heritage protection should be the analysis of the conditions on which it is based\(^3\). Heritage protection is in principle not a discipline that defines the target, objective and methods of the action independently/autonomously. Heritage protection is a discipline determined and shaped by multiple external factors - technical, social, cultural, historical, political, financial, functional etc. However, for the purposes of this analysis three main aspects may be presented:

- characteristics of contemporary heritage /object of interest/
- competences of conservators /heritage protection system/
- theory of conservation/ tools for analysis/

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\(^3\) The key factor changing the heritage protection conditions is the broadening perception of cultural heritage and the recognition of the rights of stakeholders to decide on the contemporary use of heritage. – Francesco Bandarin, Ron van Oers, *The Historic Urban Landscape. Managing Heritage in an Urban Century*, Willey-Blakwell, 2012, pp.105-111.

Fig. 1 Washington - the facades of historic buildings "glued" on the side wall of the shopping center; Photo: B. Szmygin
1. Characteristics of contemporary heritage

The first factor influencing contemporary heritage protection is the material characteristics of the set of elements that are recognized as heritage. Heritage is a vast and heterogeneous set of elements in bad condition that need significant intervention in order to perform contemporary functions. Each of these aspects have its own objective character. The problem can be illustrated by the example of listed heritage in Poland. This analysis concerns three aspects of the collection of historical objects in Poland.

The first aspect is the quantity of monuments⁴. According to the National Heritage Board of Poland the set of monuments' documentation is the following⁵. (see Fig. 4)

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⁴ Increasing the collection of objects considered as heritage is a common process. In England, for example, the number of listed buildings increased from the 1960s to the 1990s from around 100,000 to around 500,000. This means that there is 1 listed building per 100 people.– *Understanding historic building conservation*, M.Forsyth, (ed.), Blackwell Publishing, 2007, s.26

Such a huge set of elements is considered to be a heritage. It ought to be examined, properly documented and protected.

The second aspect is the technical condition of the monuments. The National Heritage Board of Poland carried out detailed analysis of all 65,000 objects listed in the Polish Heritage Register⁶. The authorities responsible for the heritage protection of these sites evaluated 3 elements:

• technical condition of the monuments
• condition of historical substance
• condition of historical form

In the evaluation, a 4-grade scale was applied: very good, good, average, bad⁷. The first graph shows the technical condition of all monuments listed in the Polish Heritage Register. The second graph shows the condition of the preserved historical substance of all monuments listed in the Polish Heritage Register. The third graph shows the condition of the preserved form of all monuments listed in the Polish Heritage Register.

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⁶ For information on the technical assessment and the time of creation of listed monuments in Poland, see: Raport o stanie zachowania zabytków nieruchomych w Polsce. Zabytki wpisane do rejestru zabytków, National Heritage Board of Poland, Warsaw 2017.

⁷ The Polish version of the report contains different nomenclature than that, used in the tables (Figs. 5-8). However, the scale of evaluations reflects the meaning of the evaluation.
THE CONSERVATOR'S RESPONSIBILITY FOR THE DETERIORATION OF MONUMENTS

Fig. 5 The technical condition of all monuments listed in the Polish Heritage Register

Fig. 6 The condition of preserved historical substance of all monuments listed in the Polish Heritage Register

Fig. 7 The condition of preserved historical substance of all monuments listed in the Polish Heritage Register
In general, the results can be summarized as follows - only circa 10% of historical objects do not require maintenance and renovation work. This means that for 90% of registered monuments, maintenance and revitalization work are required due to the poor technical condition of the historical object/form/substance.

The third aspect are the needs resulting from the adaptation of monuments to contemporary functions. Obviously, historical buildings need to be adapted to contemporary functions and it is a condition for their protection and funding. It is hard to find a simple indicator that would define all the needs resulting from the adaptation of historical buildings to contemporary functions and standards. However, the age of the building may be used as a simplified indicator.

The older the building, the more it differs from modern standards of usability, technology and functionality. Therefore, the older the building, the more maintenance and renovation work is needed in order to adapt it to contemporary functions.

Fig. 8 Period of creation of all monuments listed in the Polish Heritage Register

All the monuments listed in the Polish Heritage Register were divided according to the time period they were built in. Only 20% of the objects listed in the Heritage Register are from the twentieth century. In practice, however, they are a hundred years old. However, over 80% of objects are older. That is why, excluding the sacral architecture, the scope of intervention needed to adapt the great part of the historical sites to modern functions has to be huge.

The statistics presented above give an overview of Polish Heritage and allow the following
The objective conditions - amount of monuments, technical condition, functional requirements, etc. - mean that contemporary interventions (maintenance, revitalization and adaptation) need to be multidimensional and extensive.

The maintenance of the proper technical condition as well as the adaptation of historical sites to modern standards and functions requires significant interventions and transformations of historical form and substance of the monuments.

Furthermore, it causes a major decrease or even deterioration of the historical value. However, this process is necessary even if conducted in accordance with the guidelines and under the supervision of the conservator. Therefore, the work of the conservator will never be perfect and he/she will never be fully satisfied with its final result. He/she should always search for better solutions.

2. Competences of the conservator and stakeholders’ participation

Characteristic of the contemporary protection system is the second main area/factor influencing the quality of heritage protection. The system of cultural heritage protection comprises many elements. One of the key factors defining these elements is the contemporary vision of the function of heritage and the responsibility for its protection. Obviously, these two elements are closely interlinked - they both derive from a certain philosophy of the perception of heritage.

Heritage protection has undergone a change in recent decades as far as its paradigm is concerned. It consists of changing the status of the heritage. The previous (traditional) paradigm could be compared to the contemporary (modern) paradigm in a few important aspects.

<table>
<thead>
<tr>
<th>Elements and goals characterizing the approach to historic monuments/heritage</th>
<th>The traditional approach Paradigm of 20th Century</th>
<th>The modern approach Paradigm of 21st Century</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status of historic monument/heritage</td>
<td>Historic monument is an element of the past</td>
<td>Heritage is an element of the present</td>
</tr>
</tbody>
</table>

8 According to ICOMOS, the speech (without specifying the author) provided by G. Araoza during the annual meeting of the Advisory Committee in Valetta (Malta) in October 2009, entitled "Protecting Heritage Places under the New Heritage Paradigm & Defining its Tolerance for Change - A Leadership Challenge for ICOMOS "(not published) may be considered as the beginning of the discussion about the crisis of theoretical bases of heritage protection.

9 The change of the paradigm of monument protection has been presented in a collective publication – Conservation Turn – Return to Conservation. Tolerance for Change, Limits of Change, Edizioni Palistampa, Firenze, 2012.
The subject of interests /elements covered by the approach/
| Historic monument; isolated (architectural) object; piece of art and a historical document; artistic, historical and documental value |
| Heritage; objects, sites and areas /historical towns, cultural landscapes, vernacular architecture, etc./ |

The attitude towards to the changes and transformations
| The changes are negative; changes lead to a devastation and reduction of heritage values /historic monument is static/ |
| The changes are a natural process in historic environment; /heritage must be dynamic/ |

The supreme aim of activities undertaken in the historical city
| Protection of the heritage values |
| No supreme aim /the aims are equivalent - the heritage protection, sustainable development, social identity and cohesion, etc./ |

The way to determine the aims and values
| Specialists |
| Specialists + public consultations /public acceptance is required/ |

The aim of the restorers actions
| Heritage protection /only/ /restorers are responsible only for the heritage/ |
| Heritage protection + other aims /e.g. development/ /restorers are also responsible for other aims/ |

Fig. 9 The heritage protection paradigm of 20th Century versus heritage protection paradigm of 21st Century

The characterized transfer of heritage to the present has very significant consequences as far as the construction of its protection system is concerned. Heritage stops being sacrum and starts being profanum. In consequence, it also leads to the privatization of ownership, protection, founding and responsibility for monuments.

In this system the conservators cannot decide on the methods and forms of heritage protection as they do not have the appropriate instruments to force their concept of protection and usage of historical site. They are only one of the stakeholders and have to adapt to other, stronger ones - e.g. owners, investors, users.

As a consequence, the conservator-restorer is a specialist organizing the dialogue among the stakeholders on possible actions to be applied on the historical object, not the protection itself.
3. Modern conservation theory / analysis tools/

In the past, when the set of monuments was relatively small and homogenous, the conservation theory was of a universal nature, such as the one formulated in the *Venice Charter*.

Nowadays, the multitude and diversity of heritage objects and the conditions of their protection mean that the conservation theory does not have a universal nature. There is no one theory that would be applicable to all typological groups of monuments. Therefore, modern conservation theory had to be divided. Certain typological groups of heritage as well as certain regions (conditions of protection) determine their own limits and forms of heritage protection. Therefore, conservation theory is being laid out in dozens of doctrinal documents. Unfortunately, it cannot be treated as normative guidelines.

A common characteristic for modern conservation theory is the admission of interference and transformation of the historical substance and form of the object. Regrettably, no analysis tools have been developed that would define the limits and possible consequences of these actions. Therefore, the interventions are also allowed in the case of World Heritage sites.10

This main weakness of conservation theory combined with the weak conservator’s position as far as specifying the forms of heritage protection result in the significant damage of historical objects and the deterioration of their historical values.

What are the conclusions resulting from the presented situation and who they are addressed to? What can be done in particular areas?

The first task - it is necessary to formally distinguish/differentiate the status and the value of historic objects/monuments which belong to the very broad set of heritage. It will allow the rules and form of protection for different heritage groups to be defined.

The second task - it is necessary to strengthen the position of conservator as far as the decisions regarding forms of heritage protection are concerned. The conservator has to have a privileged position among the other stakeholders - today the situation is the opposite.

The third task - it is necessary to develop a methodology of analysis of historical objects that would define the attributes of historic values. It is necessary to elaborate the analytic tools in order to relate the heritage values to their tangible representation.

The task formulated above belong to the area of conservation theory. It means that these are tasks for the International Scientific Committee on Theory of Conservation. Modern conservation theory should create the basis for heritage protection in the twenty-first century. It is also the precondition to emerge from the current crisis our discipline is in.

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10 The necessity of combining the protection of World Heritage properties with their use (and necessary interventions) requires appropriate management - *Managing Cultural World Heritage*, World Heritage Center, 2013.
Abstract: Nowadays, heritage conservators are required to have not only a wide variety of technical but also social and human skills. The shift from a material-based conservation to an approach that focuses on subjects instead of objects (Muñoz Viñas, 2005, p. 147) is a structural approach in contemporary theories of conservation. This tendency towards subjectivity created many possibilities by exposing the multiple perspectives that surround a conservation object. At the same time, it made very clear that conservation objects are contextual and contingent (Clavir, 2009, p. 141). This dichotomy between the tangible and intangible features of a conservation object, however, has been successively overlooked in most conservation endeavours. Prior to the conservation decision-making, institutions usually identified the main stakeholders, with publics and communities being part of that sphere together with owners, artists, and conservators, among others. The decision-making process, however, does not engage with communities in practice. This situation is very problematic for the conservation of cultural heritage objects in general, but it becomes truly hazardous for the preservation of cultural heritage with strong intangible features, such as social artistic practices, ethnographic objects, public art, participatory or performance art or even built heritage, which necessarily involves strong cooperation with communities and artists. After all, to whom are conservators preserving cultural heritage? What is the purpose of conserving cultural heritage for “future generations” if “present generations” are not called to decide in that process? This paper attempts to reflect upon these questions through histories around two buildings in Lisbon that had relevant roles during the Portuguese dictatorship (1933-1974).

Keywords: Public engagement, sustainability, built heritage, social justice

Introduction
Sustainable development and sustainability have been increasingly mentioned in political discourses worldwide. The limited amount of resources has intensified worries not only
about how we use them, but also about who gets to use them. The same is also happening in the conservation of Cultural Heritage. Talks about ‘green’ approaches to the conservation of objects have been paramount in the last years. The American Institute of conservation (AIC), for example, has created a Sustainability Committee in 2008, due to the apprehension about the effect practices of conservation might have in the environment:

> Conservators utilize resources whose production, use, and disposal can have cumulative, sometimes irreversible consequences, such as air and water pollution, deforestation, thinning of the ozone layer, unnecessary plastic waste, and the use of non-renewable energy. We must educate ourselves and build awareness of our impact on the environment and one another. (AIC, 2018)

Other authors and institutions share this concern, and have argued for the sustainability of conservation treatments either through the use of products which are less hazardous for the environment, by creating new innovative methods (see Prati et al., 2017 for an example) or by finding ways to make treatments more durable (see de Silva & Henderson, 2011 for an overview of how the museum sector has dealt with those issues).

At the same time, more and more scholars (particularly from Critical Heritage Studies – see Harvey, 2001, for example) consider Cultural Heritage as a resource in itself. This inevitably leads to discussions about how we use it, in which ways we are exploring it, and who gets access to this resource. Drawing on previous studies from the field of Critical Heritage Studies and conservation (in the expanded field, understood as a set of actions aiming at preserving cultural heritage), this paper explores the notion of Cultural Heritage and its preservation while arguing for communities’ engagement in conservation’s decision-making process. The uses of two historical buildings from Lisbon will be discussed in relation to this theme.

**Two historical places at the core of the city**

Portugal, April 25th, 1974.

After forty-one years of dictatorship, Portuguese people occupy the streets of Lisbon demanding a political change. This movement, also known as The Carnation Revolution, although planned by the left-wing military, is characterized by its great popular participation, and by being one of the few pacifist military-coups that happened in the 20th century. This dictatorship period (1933-1974), called Estado Novo, is characterised by great military

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1 See, for example, the 2030 Agenda for Sustainable Development, created by the United Nations, which puts forward goals related to resource distribution on par with goals related to access to those resources. Goal 16 – “promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels” (UNA/RES/70/1) - is worth mentioning regarding Cultural Heritage conservation and management.

2 For a discussion about how this issue affects performance-based artworks see Marcal and Macedo 2017.
oppression, with intense censorship, and prosecution of regime opponents, which were often imprisoned and tortured by PIDE, the International and State Defense Police (in Portuguese: Polícia Internacional e de Defesa do Estado), the regime's police, which became known as DGS after 1969.

Fig. 1 Building at António Maria Cardoso Street, 22, Lisbon. Former headquarter of PIDE/DGS (until 1974). Photo: available at https://desenvolturasedesacatos.blogspot.pt/2011/05/excertos-historicos-tenebrosa-pide.html

Fig. 2: Building at António Maria Cardoso Street, 22, Lisbon, after its restoration, and again under construction. Photo: Gil Marçal

PIDE’s (and DGS’s) headquarters, located at António Maria Cardoso Street in Lisbon (Fig. 1), was the stage of many episodes of torture and even painful death. For many people that lived in that period, this address, this building, its front, and its interiors, are a symbol
of repression and revolution. The number 22 of António Maria Cardoso Street, in Lisbon is now a luxury condo (Fig.2). For the generation that was born after the revolution (and after the turbulent revolutionary process that lasted until the 1980s), this is just one more building in a busy street at the heart of Portugal’s main city. This erasure of the building’s history and of the memories of the community became even more drastic after the removal of the commemorative sign, which referred to the events of April 25th, 1974, in 2010 (due to the rehabilitation of the building) and in 2014 (after a robbery – see Figures 3 and 4). After the second removal, Lisbon’s municipality interfered, and added a new sign, aiming at encouraging the preservation of memories of the building (Boaventura, 2014). The sign, however, lists the names of the people that were killed during the Carnation Revolution and does not mention the previous function of this heritage site.

Fig. 3: Commemorative sign present on the walls of António Maria Cardoso Street, 22, Lisbon until 2010 (photograph available at https://desenvolturasedesacatos.blogspot.pt/2011/05/excertos-historicos-tenebrosa-pide.html). Translation to English, by the author: “Here, in the afternoon of April 25th 1974, PIDE opened fire on Lisbon’s people and killed: Fernando C. Gesteira, José J. Barneto, Fernando Barreiros dos Reis, José Guilherme R. Arruda. An reverence from a group of citizens 25-4-1980”. Photo: Gil Marçal

Fig. 4: Positioning of the commemorative sign in the building. Photo: Gil Marçal

Within a 15-min walk in the direction of Lisbon’s Castle (Castelo de São Jorge), it is possible to find Aljube’s prison, which was used by the PIDE until 1965, when it was closed after multiple complains, including from the International Amnesty (Oliveira, 2012 – see Fig. 5). In this prison, political prisoners were held and tortured for months, frequently living in small cells where they had to be permanently seated. Among its prisoners, it is possible to account for Miguel Torga, Álvaro Cunhal, and Portugal’s former Prime Minister Mário Soares. Aljube is also one of Lisbon’s oldest buildings, as it is one of the few structures that resisted to 1775’s earthquake. Nowadays, Aljube’s prison is Aljube’s Museum (in Portuguese Museu do Aljube – Liberdade e Resistência – see Fig. 6 and 7). Within its new role, there is a path towards the memorialization of the dictatorship, the resistance, the revolution, and of the multiple voices that are still unheard, the multiple stories that are yet invisible (Museu do
Aljube – Resistência e Liberdade, 2015). This intention can be seen in the discourses of the exhibition space, as this museum without physical collection serves a vehicle of testimonies and as a receptacle of memories, as well as in the other spaces that are part of this Museum, which includes a documentation centre.


Fig. 6: Front view of the Aljube’s museum, the prison after the renovation. Photo: Gil Marçal

Fig. 7: Lateral view of the Aljube’s museum, the prison after the renovation. Photo: Gil Marçal

Comparing PIDE’s headquarters with Aljube’s prison it is possible to see two building rehabilitations: but while in the first case the memories of the place have been erased, in the second these memories are being praised, transmitted, and continually constructed. While these are extreme cases of erasure and memorialization, they can be used as operative tools in the examination of more nuanced issues that might occur in the conservation of cultural heritage. Where does the “original intention of the artist” ends, and the “social significance” of the object starts? When does conservation stop to be a process aiming at recovering the past, and starts replacing memories? Whose memories are being preserved, and where is the social in the object’s meanings? Where lies the conservation decisions around those two buildings?
The politics of conservation: what and for whom is conservation?

Conservation is currently defined by the International Council of Museums – Committee for conservation (ICOM-CC) as “all measures and actions aimed at safeguarding tangible cultural heritage while ensuring its accessibility to present and future generations”. All conservation “measures and actions should respect the significance and the physical properties of the cultural heritage item” (ICOM-CC, 2008). Three main aspects should be taken into account when analysing this brief description: (1) conservation is defined as an aggregation of actions targeting the safeguarding of cultural heritage; (2) conservation actions should safeguard both the physical properties and the significance of a given cultural heritage item; and (3) conservation actions are limited to preserving tangible cultural heritage.

Despite this definition and the importance given to the notion of “tangible cultural heritage”, the idea of the “intangible” is increasingly permeating the conservation field. In the context of the conservation of Contemporary Art, for example, documenting the artwork’s “intangible features” became a conservation action on par with other operations regarding the object’s tangible manifestation (Weyer & Heydenreich, 2005; Wharton, 2005). The documentation of an artwork’s “intangible features” included, among other things, remarks about appropriate lighting, the role of the audience, or the artwork’s biography (van de Vall et al., 2011) or career (van Saaze, 2013). The need to document or, at the very least, assess the object’s “intangible features” became increasingly indispensable as the ritualistic or performative elements of cultural heritage items were acknowledged, as in the case of performance art, public art, or objects from World Cultures (Scholte, 2010). That is also the case of the built heritage that is part of a city’s fabric: the becoming of a city is comprised by effects of the past and present communities that inhabit every house, every place. In these contexts, the dichotomy between the tangible and the intangible becomes less clear.

Material-oriented conservation and the notion of tangibility

Looking at ICOM-CC definition, it is possible to see that the identity of conservation’s interdisciplinary field is constructed around the idea of tangibility. “Tangible cultural heritage”, however, is an expression lacking definition in itself either in ICOM-CC’s Resolution of Terminology for conservation or in the context of conservation’s codes of ethics.

ICOM-CC’s Resolution on Terminology for conservation, created in 2008 by a Task Force made up of members of the ICOM-CC board, refers to four main terms - conservation (as described above), preventive conservation, remedial conservation, and restoration – but does not examine the other terms used to characterise the object in need of conservation, such as safeguarding or tangible cultural heritage. In the commentary accompanying ICOM-CC’s Resolution on Terminology it is noted that conservation actions are acknowledged according to (1) their aims, or “whether they address future deterioration, current deterioration, or past deterioration”; (2) their impact on the material properties and physical appearance of the object; and (3) their sphere of influence, or “whether they can be applied to only
one cultural heritage item at a time or to a group of items” (ICOM-CC, 2008). Two main observations emerge from this commentary: (1) the notion of safeguarding is linked to the aim of conservation, and (2) the Resolution was written having a material-oriented notion of conservation in mind. These two positions can be seen across conservation’s various codes of ethics and definitions, all of which tend to acknowledge conservation as a material-oriented discipline. In any of these codes or definitions, safeguarding appears as an action involving traditional conservation axioms, such as the idea of minimum intervention or of maintaining the original material, both of which have been contested in recent theoretical explorations. Even if the aim of safeguarding actions resides in the maintenance of the physical properties of the object, it is always possible to count several instances when the “requirements of social use” go against what is expected from the perspective of the material conservation of cultural heritage (see, for example, Muñoz Viñas, 2005, p. 105). And although a cultural object’s use seems to be interrelated with its material properties, current codes of ethics and definitions, however, appear to be too general to account for differences in cultures of conservation, that is, of the why and the how a given cultural heritage item is preserved (cf. Ashley-Smith, 2017).

Current codes of ethics and definitions of conservation have been seminal in the establishment of a conservation doctrine, and yet they do not seem to encompass recent theoretical developments. Rather than merely a scientific and seemingly objective materials-based practice, conservation is now recognised as a product of a “socially constructed activity with numerous public stakeholders” (Bracker & Richmond, 2009, xv-xvi; see also Cane, 2009). And yet, conservation practices, however, still appear to be linked with the materials of cultural heritage. But if conservation is a socially constructed activity, safeguarding is a confederation of socially induced actions. So, in which ways are safeguarding actions being socially constructed? How does it affect in-facto the preservation of the significance and physicality of cultural heritage?

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3 The ICOM-CC’s *The Conservator-Restorer: a Definition of the Profession*, for example, posits the conservator as an agent that conserves and restores “cultural property”, adding that this activity includes examination, preservation, and restoration (ICOM-CC 1984). AIC’s *Code of Ethics and Guidelines for Practice* assumes that conservation’s aims lie in the preservation of cultural property, comprising “material which has significance that may be artistic, historical, scientific, religious, or social, and it is an invaluable and irreplaceable legacy that must be preserved for future generations” (AIC 1994). CAC’s and CAPC’s *Code of Ethics and Guidance for Practice* considers that the aim of conservation is “to study, record, retain and restore the culturally significant qualities of the cultural property as embodied in its physical and chemical nature, with the least possible intervention” (CAC and CAPC 2000, 13). The AICCM’s *Code of Ethics and Code of Practice* suggests that conservation targets “cultural material”, although it specifies “artworks”, a notion to be understood loosely, as one example of what cultural material might be (AICCM 2002). E.C.C.O.’s *Professional Guidelines* (II), state that the conservator “shall respect the aesthetic, historic and spiritual significance and the physical integrity of the cultural heritage entrusted to her/his care”, while taking into account “the requirements of its social use while preserving the cultural heritage” (Art. 5 and 6, ECCO 2003).
Cultural heritage: conserving the object and its values

The above-mentioned Codes of Ethics are based on ways of seeing cultural heritage, which is highly dependent on the values that surround - or even define - cultural heritage objects and their significance (Avrami et al., 2000, Clavir, 2009, Revez, 2017). Values,\(^4\) as stated in the preface of the seminal Report on Values and Heritage conservation, “are critical to deciding what to conserve—what material goods will represent us and our past to future generations—as well as to determining how to conserve” (Avrami et al., 2000, 5). Values are “derived from the meanings and uses that people attach to buildings, sites, and landscapes, and [are] constructed amongst individual, institutional, and community actors” (Avrami, 2009, 179). The Nara Document on Authenticity (ICOMOS 1994) similarly states that “conservation of cultural heritage in all its forms and historical periods is rooted in the values attributed to the heritage” (ICOMOS, 1994). In a values-based approach to conservation (Muñoz Viñas, 2005),\(^5\) values are fundamental to conservation decision-making (Applebaum, 2009, Avrami et al., 2000, Muñoz Viñas, 2005, Taylor & Cassar, 2008). Conservator and theorist Jonathan Ashley-Smith points out that values are “a social construct dependent on social relationships [and are] bound to change through time and between cultures” and are “an extrinsic property that cannot be directly detected by the senses” (Ashley-Smith, 1999, p. 81- 82). Values associated with an object are the reason why it is intuitively evident that safeguarding means a very different thing regarding the conservation of a 15th-Century historical manuscript as opposed to last week’s local newspaper. They are also the reason why those two buildings in Lisbon would provide a very different discussion if they had not been actors in one of the most problematic periods of Portugal’s recent history.

One of the most important steps in any conservation endeavour (in its broad sense) is, therefore, value assessment.\(^6\) This step involves many stakeholders and its importance is seen across many instances of the conservation process (Avrami et al., 2000), as it helps to determine the relative significance of the cultural heritage item (why is it important, and for whom?) as well as the measures to be applied. Value assessment is, however, rather complex, especially as “the values of certain stakeholders may conflict with those of others,

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\(^4\) Among the many values identified, the historical, symbolic, scientific, and aesthetic values are the ones most frequently referred to in the conservation literature (Revez, 2017). The conservator Maria João Revez comments that, curiously, one of the most importance references in conservation theory from the 20th century, Cesare Brandi, only recognizes the importance of historical and aesthetic values in conservation decision-making (Revez, 2017). For an expanded study on values in cultural heritage and conservation see Applebaum, 2009; Avrami et al., 2000; Avrami, 2009; Muñoz Viñas, 2005; and Revez, 2017. For an historical perspective on values in conservation see (Berducou, 2007).

\(^5\) Value-led conservation has gained many advocates in the conservation field since the turn of the millenium (see p.e. Avrami et al., 2000; Muñoz-Viñas, 2005; van de Vall, [1999] 2005; or, more recently, Ashley-Smith, 2017). Muñoz Viñas “communicative turn” also adds to this perspective.

\(^6\) It is of utmost importance to consider that any conservation endeavour is not restricted to the conservator’s realm. Value assessment should be done across various spheres and through communication with multiple stakeholders.
and values may change over time or as a result of political conditions” (Avrami, 2009, p. 179). Thus, an assessment of significance needs to be repeated each time the same item of cultural heritage undergoes any safeguarding action.

Looking at the various codes of ethics again, it is possible to see how assessing the object’s significance has featured only as a secondary task in conservation. Most documents are oriented towards the material properties of cultural heritage and do not provide guidelines for the assessment of their significance, nor list this task as part of the conservator’s responsibilities. Moreover, there are various value systems that can be applied. According to Revez, Alois Riegl’s framework of values is one of the most commonly used in the conservation literature (Revez, 2017). He refers to several characteristics such as historical and age and defines them according to their temporal nature as having both memory and present-day values (Riegl, [1903] 1996). Riegl also suggests that every conservation action implies choosing one set of values of relative importance over, or instead of another. As mentioned earlier, the philosopher Renée van de Vall thus suggests that every choice is “tragic” (van de Vall, [1999] 2005), as enhancing a given value will imply the loss of others.

A conservation decision has potential effects on value-attribution which can then vary with the degree and type of intervention proposed. Several values need to be taken into account, including historical, aesthetical, use, or scientific values, among others. These values are expressed through spatiotemporal contexts and, as such, value attribution is always contextual. Following the reasoning outlined by Joel Taylor and May Cassar, a decision to renew the building at António Maria Cardoso Street, could be a good solution for enhancing economic, aesthetic, and even utility values (Taylor & Cassar 2008). It can, however, jeopardise the symbolic, historical, and research value of the building. This loss is even more dramatic if the commemorative plate remains ambiguous about the role of the building in recent history. In a session in Aljube’s Museum in 2017 (in a context of a cycle of talks regarding the intangibilities of Cultural Heritage), one of the participants recalled that he had seen various historical documents dispersed onto the building’s floor the day before the construction began. In this case, the alienation of the memory of the building also took the shape of a loss of its physical archive.

Decisions, however, have to be made, and built heritage, especially when lacking public protection is more prone to change than a piece of visual arts that has entered the public sphere. In the case of António Maria Cardoso Street, an optimal decision would lie in the

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7 This tendency is also seen in regard to other texts: Nicholas Stanley-Price, M. Kirby Talley Jr. and Alessandra Melucco Vaccaro’s seminal book *Historical and Philosophical Issues in the conservation of Cultural Heritage* (1996), for example, gathers excerpts from texts by relevant authors such as Ruskin’s *The Seven Lamps of Architecture* (1849), Brandi’s *Theory of Restoration* (1963), Erwin Panofsky’s *History of Art as a Humanistic Discipline* (1955), Philippot’s *Restoration from the Perspective of the Social Sciences* (1989), among others. This book provides an historical perspective on issues in conservation, but also allows a brief overview of how cultures of practices have changed across disciplinary perspectives. The book by Alessandro Conti *A History of the Restoration and conservation of Works of Art* is also worth exploring in this context.
equilibrium between the safeguarding its symbolic and historical value while reasserting its utility value – that is, transforming it in a residential complex, without erasing the memory of past events. Optimal situations, however, are rare, and conservation needs to look for ways to search for an equilibrium between what can be saved and what will be irretrievably lost. As suggested by Salvador Muñoz Viñas (2009), we need to look for a balanced meaning-loss and opt for interventions that maintain the largest area of values as possible, thus ensuring the minimal loss of meaning. An optimal situation for the evaluation of values would encompass various perspectives on the relative importance of each value. However, as the example above indicates, often a singular point of view is taken to ascribe the values involved in the proposed treatment, here in the case of the renewal of the number 22 of António Maria Cardoso Street, in Lisbon. So, how can decisions be made about which values are to be taken into account, and which are considered less relevant in a given context? How to assess the values of the cultural heritage from beyond a singular perspective, and how does conservation doctrine acknowledge those different perspectives?

Multiplicity of values and authorised heritage discourse

An analysis of the various official documents and charters of conservation shows that the path towards the acknowledgement of intangible expressions of cultural heritage, as well as of the intangible features of tangible cultural heritage, was concomitant (Vecco, 2010). Marilena Vecco (2010), in her seminal article about this theme, provides a critical overview of the path towards the acknowledgement of intangible cultural heritage in official documents. However, a discussion on how these documents affect and are affected by conservation discourse is yet to happen.

Some documents discuss cultural heritage items as monuments. The Venice Charter, for example, posits heritage in association with historic monuments, stating that these objects “remain to the present day as living witnesses of their age-old traditions”, characterising them as “common heritage” and their safeguarding as a “common responsibility” (ICOMOS, 1964). In 1972, UNESCO’s Convention on the protection of world, cultural and natural heritage still adopts that terminology by defining cultural heritage as monuments, groups of buildings, and sites (UNESCO, 1972). The notion of monuments in use is, however, somewhat limited. Monuments are here understood as “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” (UNESCO, 1972). The 2013 version of the Chart was consulted for this discussion. According to Emma Waterton and her co-authors, The Burra Charter’s original draft in 1979 was much indebted to the 1964 Venice Charter. The Venice Charter was criticised given its “privileging of authenticity, and fetishism of the tangible and monumental” (Waterton et al., 2006). Although the Burra Charter has been revised, at the time of their writing Waterton and her co-authors argue that although the many versions of the Charter added to its first formulation, the contents did not significantly change (ibid.). Waterton and her co-authors criticism is thus still applied to the 2013’s version of the Burra Charter (ibid.)

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broadens the idea of cultural heritage by introducing the idea of places of cultural significance “including natural, indigenous and historic places with cultural values” (Australia ICOMOS, 2013a, p. 1). Curiously, this 1979 document posits that the aim of conservation is “to retain the cultural significance of a place”, identifying and taking “into consideration all aspects of cultural and natural significance without unwarranted emphasis on any one value at the expense of others” (Australia ICOMOS, 2013a, p. 3-4). The **Burra Charter**, by referring to the importance of social significance and the multiplicity of values present at each individual place of significance, thus introduces a type of value-led conservation.

The strong correlation made between any cultural heritage manifestation and its associated heritage values introduced by The **Burra Charter** is even more evident in the subsequent **Nara Document on Authenticity** from 1994. This document expands the association between the diversity of cultural heritage manifestations and heritage values and considers values as the fundamental constituent in every item of cultural heritage. The prominence of values is evident in the sections Values and Authenticity and Definitions, which indicate that conservation actions are “rooted in the values attributed to the heritage” and consists of “all operations designed to understand a property, know its history and meaning, ensure its material safeguard, and, if required, its restoration and enhancement” (ICOMOS, 1994). In 1996, **The Declaration of San Antonio** added to this discussion by suggesting that “the authenticity of our cultural heritage is directly related to our cultural identity”. Cultural identity, the Declaration adds, is “at the core of community and national life, it is the foundation of our cultural heritage and its conservation” (Point B1, ICOMOS, 1996). **The Krakow Charter** (2000), incorporates such perspectives in the conservation of Built Heritage by primarily focussing on the plurality of values that constitute notions of heritage within various communities, stating that “monuments, as individual elements of this heritage, are bearers of values, which may change in time” (ICOMOS, 2000). The idea of a multiplicity of values is enshrined in this Charter with conservation being regarded as a community action. Communities here hold power to decide not only what to preserve but also, theoretically, how to conserve. conservation is defined in the **Krakow Charter** as an action of a “community that contributes to making the heritage and its monuments endure”. conservation is thus achieved “with reference to the significance of the entity, with its associated values” (“Annex definitions”, ICOMOS, 2000, emphasis added).

Despite the advancements made with the **Burra Charter**, the **Nara Document on Authenticity**, and the **Krakow Charter**, a careful reading of these documents shows that the relative importance of the values that surround an item of cultural heritage is often assumed in advance of the conservation process. Historical and aesthetic values are profusely referred

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10 In this context it is important to refer to the **ICOMOS New Zealand Charter for the conservation of Places of Cultural Significance** (adopted in 2012), which acknowledges the importance of conservation as “all the processes of understanding and caring for a place so as to safeguard its cultural heritage value”. Those actions are based “on respect for the existing fabric [that is, physical manifestation], associations, meanings, and use of the place” (ICOMOS, 2012, p. 9).
to whereas other values, such as symbolic or use value appear less often.\footnote{According to Meredith Walker and Peter Marquis-Kyle The Burra Charter revisions aimed to broaden the definition of cultural heritage, along with “the conception of cultural significance to include not only fabric but also use, associations and meanings.” (Walker & Marquis-Kyle, 2004, p. 4). For Waterton et al., however, “while it is important to acknowledge that the revision of The Burra Charter forms part of an attempt to incorporate changing attitudes to community inclusion, participation and consultation, this attempt remains largely unsuccessful” (Waterton et al., 2006, p. 341). The main reason for The Burra Charter’s incapacity to operate, according to these authors, lies in the interstices of the Charter’s discourse, which perpetuates forms of power.}

Enhancing such values over those others might imply the predominance of western value systems over a more pluralistic view that includes other social systems, practices, or constructions, building on what Critical Heritage Studies theorist Laurajane Smith calls “authorised heritage discourse” (Smith, 2006).

According to Smith, \textit{authorised heritage discourse} occurs where narratives regarding what cultural heritage is and how we can take care of it are “based on the western national and elite class experiences.” This often reinforces “ideas of innate cultural value tied to time depth, monumentality, expert knowledge and aesthetics” (Smith, 2006, p. 299). According to Smith, for something to qualify as heritage is a cultural process strongly tied to power struggles (Smith, 2006; see also Harvey, 2001). Different narratives about what constitutes heritage compete for legitimisation, and this is more often than not sanctioned by and for those agents who hold the most power, including international and national agencies such as ICOMOS and UNESCO (or ICOM), along with states or municipalities.\footnote{Some critics of Smith’s definition state that the Burra Charter, for example, represents a shift into value-led ways of seeing and using heritage. The Burra Charter was produced by UNESCO, which is one of the institutions Smith claims de-legitimises different viewpoints regarding cultural heritage and heritage practices. Smith and her co-authors Gary Campbell and Emma Waterton posit that the charter is still very much focused on the tangible aspects of cultural heritage. Moreover, using what they call “critical discourse analysis”, they conclude that “although laudable and sincere attempts have been made to incorporate a greater sense of social inclusion and participation in the Charter’s revision, the discursive construction of the Burra Charter effectively undermines these innovations (…). Whether the construction of the discourse is an active attempt to maintain the privileged position of expertise in management and conservation processes or is an unintended outcome of a naturalised and self-referential approach, is no longer at issue.” (Waterton et al., 2006, p. 355).}

Taking Smith’s perspective into account and following the analysis of conservation’s codes of ethics as well as UNESCO’s documents, it appears that practices of conservation (in the broad sense) reiterate the value systems aligned with “authorised heritage discourses”, which are developed and maintained by the “heritage regimes” (Geismar, 2015) that hold deliberative power. Because value assessment is consigned to decisions about what is to be considered cultural heritage rather than about how to conserve the cultural object, significance assessment seems to not be directly linked to the practice of conservation, but to the choice regarding what is to be conserved. Although conservators play an active role in deciding cultural heritage materialisations, as discussed above, until recent years their role as it is expressed in conservation documents appears to have been confined to the tangible aspects of the object rather than on its intangible aspects or the realm of the values that
might otherwise constitute it as cultural heritage. As it is well known that does not happen in practice, where conservators must decide on how the artwork or cultural object is to be preserved and shown.

Allied to a lack of proper tools for making value assessment to facilitate the negotiation between multiple stakeholders (Avrami et al., 2000; Revez, 2017), conservation’s focus on the material aspect of cultural heritage jeopardises the safeguarding of the wider set of values associated with the particular item of cultural heritage. But if the social context of cultural heritage is the key in determining its significance, thus being the aim of conservation, why is conservation so concerned primarily with the object’s tangibility? And what is the aspect of cultural heritage that conservators are supposed to conserve? Moreover, considering that any item of cultural heritage is characterised by the values ascribed to it, which are defined by communities and by specific individuals, then is not all cultural heritage intangible?

That is the view of recent studies on cultural heritage, especially in Critical Heritage Studies. Using ‘cultural heritage’ as a verb instead of a noun (Harvey, 2001), it is defined as a communicative social practice (Dicks, 2000; Smith, 2006), performative in itself (Haldrup & Bærenholdt, 2015), metaculture, and a process of negotiation between acts of remembering and forgetting instantiated by variously conflicted actors (for example see Smith, 2006). As mentioned before, because cultural heritage is constituted by the heritage values derived from social and cultural narratives (and counternarratives), it is a discursive practice which has multiple facets. Acknowledging that cultural heritage is a process in continuum, and an embodiment of cultural narratives (whether authorised or not), it is thus important to ask whether binaries such as tangible-intangible, palpable-impalpable (at the core of the terminology used in the conservation field) still make sense. Indeed, in the introduction to Intangible Heritage, Laurajane Smith and Natsuko Akagawa question precisely the “utility of the polarising debate between ‘tangible’ and ‘intangible’ heritage”, suggesting that “heritage only becomes ‘heritage’ when it becomes recognisable within a particular set of cultural or social values, which are themselves ‘intangible’” (Smith & Akawaga, 2009, p. 6). They further add:

> Any item or place of tangible heritage can only be recognised and understood as heritage through the values people and organisations like UNESCO give it – it possesses no inherent value that ‘makes’ it heritage (...). All heritage is intangible, not only because of the values we give to heritage, but because of the cultural work that heritage does in any society.

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13 Authors such as Miriam Clavir (1994, 2009), Johnathan Ashley-Smith (2000, 2009), Henderson and Nakamoto (2016) or Joel Taylor (2015), among others, have reached this same conclusion. One of the Burra Charter’s later practice notes, Practice Note on Understanding and assessing cultural significance (Australia ICOMOS 2013b), is also worth consulting regarding this.

14 Referring to Barbara Kirshenblatt-Gimblett’s notion of heritage as metaculture (Kirshenblatt-Gimblett, 2004), Helaine Silverman suggests “heritage is culture speaking about culture and revealing the continuities and discontinuities in the social, political, economic and other processes and reconfigured space and time that create and represent it” (2015, p. 70).
Conservator and theorist Joel Taylor also adds to this discussion by suggesting that conservation has been focused on the idea of heritage as “the object, the embodiment”, while, drawing on the idea that heritage “is not the object or material itself, but the reason that the object is conserved”, “a site does not need to be tangible to embody value” (Taylor, 2015, p. 6). This condition of cultural heritage suggests a paradigm shift from “a cognitive movement from a form of episteme (or way of knowing) centred on objects towards one with an emphasis on living processes and manifestations” (Machuca, 2013, p. 61). In this sense, if Cultural Heritage is comprised by the values that make it Cultural Heritage, communities are at the core of the makings of those manifestations. This change in perspective has implicit and explicit consequences in the workings or, using a term coined in the field of conservation by Vivian van Saaze, the doings of conservation (van Saaze, 2013).

The doings of conservation: who is called to the decide?

The doings of conservation usually start with the identification of the main stakeholders. Communities, together with owners, public bodies, architects, historians, and conservators, for example, can be included. Indeed, several cases in the conservation literature refer to community consultation, without specifying how they define “community”, nor how any such consultation process could work (see Henderson & Nakamoto, 2016). According to Museum Studies Scholar Jennifer Barrett (Barrett, 2012) what can be understood by “community” is a fluid and contextual concept. Often related to an idea of “place”, in addition to a correlation with “sharing”, Barrett concludes that there is however no consensus about what this term means (ibid.). If we acknowledge that “community” is a group of people that share something, it is possible to propose that one of the “communities” that matters for conservation efforts is a group of people that share an interest in the object, whatever that interest might be. conservation literature on community/ies engagement, however, shows that the communities have a peripheral role in conservation’s decision-making process. While a systematic study of the collaboration between artists and communities, by Jane Henderson and Tanya Nakamoto, shows that the conservation literature reports instances of community engagement in the care of artworks or objects (Henderson & Nakamoto, 2016), they make it clear, however, that in current conservation practice, consultation with those dominant stakeholders such as the owner, “experts” (as defined by Muñoz Viñas, 2005), and, sometimes artists, has precedence over consultation with any wider community. In their study, Henderson and Nakamoto conclude that, although there seems to be effective communication regarding the values of cultural heritage, when “consultation strays into the aspects of conservation practice and decisions that impinge on the physical manifestation of the object there is less ease with the community” (Henderson & Nakamoto, 2016, p. 77). And when there is interaction with communities on the preservation of objects, details of the interaction (such as the methodology used to understand communities’ expectations) remain absent from the conservation documentation that is associated with the object in the future (Henderson & Nakamoto, 2016, p. 75; referring to Sloggett, 2009).
Acknowledging that documentation is always partial, it is important to understand what is missing when discussing the issue of stakeholders and decision making. Where absent from the conservation decision-making process and from any conservation documentation produced around an object, building, or site, the communities that surround the work are left out of the systems of power so that other stakeholders are privileged with a stronger voice and can dominate the process (Waterton & Smith, 2010). On the other hand, the concept of “community” is very heterogeneous, and if some of the social groupings can be easily be identified due to the development of formal or informal associations, in other instances stakeholders are impossible to identify and thus to be reached in an effective manner (Waterton & Smith, 2010). But then the question is raised as to how does such an imbalance in participation in the decision-making process affect the preservation of cultural heritage?\textsuperscript{15} Can the decision to conserve be effectively shared?

\textit{Experts and authorised heritage discourse}

Conservation scientist Stefan Michalski argued in 1994 that we share the responsibility for conservation decisions with many other human and non-human agents (Michalski 1994). Studies regarding sharing with “museum outsiders” (as Michalski calls them - 1994, p. 255) are, however, in his perspective, rare. Michalski’s account, which draws deeply on texts from new museologists, focuses on communities’ collaboration regarding the conservation of cultural objects from “forgotten people”. Also within the field of conservation, the philosopher and conservator Iris Kapelouzou indicated in 2012 that conservation decisions are inherently shared; she states that conservation “should be conceived as a field of shared values and commonality of aim” (2012, p. 181). Kapelouzou proposes that conservation, as a value-led humanistic practice, needs to consider the values associated with cultural heritage, which are in themselves associated with a shared value system. With this perspective, the conservator, along with other experts, is then seen as a representative of present generations, with whom he/she shares the values associated with current cultural heritage manifestations. However, we saw how Laurajane Smith, one of the most renowned scholars in the field of Critical Heritage Studies, argues that heritage is “exclusionary and it is intentionally so” (Smith, 2009, p. 2), and that the idea of universal values tends to reflect Western views of what is cultural heritage and, by association, how it is preserved. In this sense, she calls \textit{authorised heritage discourse} (AHD) the westernised tendency to protect material culture “deemed to be of innate and inheritable value” (ibid.), with the heritage process functioning under a “monolithic” interpretation. In this sense, heritage becomes a legitimising device, granting authority to some cultural and social values and thereby excluding all \textit{Others}. Indeed, Smith argues that because of such authorised discourse, its inclusions and exclusions influence the way heritage is preserved for future generations:

\textsuperscript{15} For a conservators’ account on how community consultation happens in practice see (Johnson et al., 2005).
The AHD focuses attention on aesthetically pleasing material objects, sites, places and/or landscapes that current generations must care for, protect and revere so that they may be passed to nebulous future generations for their ‘education’ and to forge a sense of common identity based on the past. The idea that the value of material culture is innate rather than associative is securely embedded in this discourse. Heritage is also seen as fragile, finite and non-renewable and thus rightly under the care of those experts best placed to stand in as stewards for the past and to understand and communicate that value of heritage to the nation – principally archaeologists, architects and historians. (Smith, 2009, p. 3).

In her analysis, which mostly refers to monuments and sites, experts are then considered as representatives of this authorised heritage discourse. In conservation, Muñoz-Viñas describes conservation actions as acts of taste (Muñoz-Viñas, 2005, p. 107), which are influenced by the notion that the conservator has about the object’s true nature and will necessarily influence the decisions he or she will make in order to “re-create that condition in a given way” (Muñoz-Viñas, 2005, p. 108). Conservation discourse affects not only the non-specialist but also other professionals. Conservators are involved in shaping the discourse addressed around the work, and thus in the materialisations of these works from the past, in the present, for the future. Moreover, being prone to the same cognitive biases (Marçal et al., 2014), fostered by commonalities in both education and work ethos, conservators’ decisions, especially when made without consulting with interdisciplinary teams, could tend to promote the authorised heritage discourse. Decisions are made influenced by cognitive and cultural biases, and thereby frame heritage research and conservation in line with mainstream ways of seeing and consuming cultural heritage. In conservation, this is seen in the disambiguation between material and discursive practices. Arguably the mattering of cultural heritage is constructed through the same dominant voices (curators, historians, etc.), which not only proceed in materialising the same heritage discourse but also influence how heritage is represented to its audiences. This idea echoes some concerns of the Performance Studies scholar Diana Taylor who opposes archive and the repertoire by considering the first as an embodiment of phallocentric and western-based views of what can be considered a cultural manifestation (Taylor, 2003). In this sense, conservation might be a vehicle to perpetuate the logic of the archive, affirming and reaffirming cultural historical narratives, made and pursued by the elite in power. Heritage thus seems destined to be forever static and controlled with conservation as a vehicle for maintaining and preserving its authorised mattering. Indeed, Laurajane Smith suggests that even the “idea of inheritance is also stressed and ensures that current generations are disengaged from an active use of heritage.” (Smith, 2009, p. 3). Conservation, as a process of transmitting intangibilities about

Curiously, this tendency was somehow foreseen by Marc Guillaume in his La politique du patrimoine, first published in 1980 (Guillaume, [1980] 2003). The author starts his reasoning by associating the politics of cultural heritage to the act of deciding what and how to conserve, and then to the idea of heritage commodification.
cultural heritage, becomes also a negotiation between the included and excluded, between reconciling the Self and Others.

Going back to the idea of sustainability, or perhaps, in this case, the ability to sustain affects and memories within the fabric of the city, it is possible to say that the strategy used in the doings of the building at António Maria Cardoso Street, in Lisbon is an example of community alienation and misrecognition that might even become an impediment to the future remembrance of the place.\(^{17}\)

**Community misrecognition in the public sphere**

In the article *The recognition and misrecognition of community heritage*, Laurajane Smith and Emma Waterton explore how community recognition is needed in order to reach fairer heritage practice (Waterton & Smith, 2010). This could be a matter of thinking about the ethics of the conservation process, and, acknowledging that cultural heritage is something that belongs to all, it is possible to consider it in a public realm, or public sphere.

According to Don Mitchell (Mitchell, 1995, p. 117), this term, coined by the sociologist and philosopher Jürgen Habermas (Habermas, 1964), refers to a realm in which democracy occurs.\(^{18}\) Waterton and Smith develop their theory through critical theorist Nancy Fraser’s notion of *parity of participation* and her ideas about “actually existing democracy” (Fraser, 1990, p. 56). According to Fraser, not only are publics (in the broad sense of the term) differently “empowered or segmented”, with some, “involuntarily (…) subordinated to others”, but that this inequality is often invisible within these publics (Fraser, 1990, p. 77). In this context, social justice, which according to Fraser “requires social arrangements that permit all (adult) members of society to interact with one another as peers” (Fraser, 2003, p. 36), is absent from most areas of society. This notion, the *parity of participation*,\(^{19}\) is at the core of

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\(^{17}\) This analysis was also made taking participatory performance works into account. For more see Marcal & Macedo, 2017.

\(^{18}\) In her analysis of the emergence of the “public sphere” Jennifer Barrett indicates that while “Habermas repeatedly uses the term ‘public sphere’”, the author “does not elaborate on its spatiality in either material or theoretical sense” (Barrett, 2012, p. 18).

\(^{19}\) Although Fraser does not explore the term “participation”, her feminist-socialist roots are very much embedded in her argument. For more on Fraser’s feminist and socialist views on power see *Unruly Practices: Power, Discourse, and Gender in Contemporary Social Theory* (Minneapolis: University of Minnesota Press, 1989).
Fraser’s theory of social justice\(^{20}\), with its main challenges *maldistribution*, *misrecognition*, and *the injustices of representation*\(^{21}\) (Fraser, 2003). Given the scope of this paper and the nature of previous studies developed in the field of Critical Heritage Studies (Waterton & Smith, 2010), the focus here is community misrecognition.\(^{22}\)

According to Fraser, misrecognition is a problem that “denies some individuals and groups the possibility of participating on a par with others in social interaction” (Fraser, 2001, p. 27). Drawing on Fraser’s perspective as explored by Waterton and Smith (2010), it becomes evident that communities are misrecognised in conservation’s decision-making process. Either by failing or not trying to identify possible representatives or advocates within communities, or by making their accounts about the work invisible, or even by transforming communities into consultants, conservation efforts (made either by conservator or not) might be complicit in withdrawing power from these stakeholders. That was what happened with the building at *António Maria Cardoso Street*, in Lisbon. Moreover, as Nancy Fraser tells us that those “whose deliberative practice consists exclusively in opinion formation and does not encompass decision-making” cannot claim to have real influence (Fraser, 1990, p. 75). Communities’ misrecognition also ensures their de-legitimisation in other processes within the public sphere. As communities lack recognition along with deliberative practice, more than being misrepresented, they remain unrepresented in the decisions about cultural heritage that is, in fact, theirs. In this sense, efforts put into place to categorise, inventory, and conserve cultural heritage might fall flat, as communities grow apart from the fabric that constitutes their past and their own cultural heritage. With regard to the conservation of cultural heritage, despite the efforts made in the development of *The Burra Charter* and *Nara Document on Authenticity*, the cultural value ascribed to communities is not yet seen on a par with those of institutional expertise. Through Fraser’s analysis it is possible to understand that this imbalance in participation creates at least two problems: (1) the voices

\(^{20}\) In her analysis, Fraser demonstrates how *parity of participation* differs from the idea of social inclusion. The political scientist states that social inclusion was a term that emerged as a way to control potential disruptive individuals (Fraser, 1989). As it will be made clearer, participation, for Fraser, includes decision-making. Art historian Claire Bishop also makes a distinction between participation and social inclusion, suggesting that “social inclusion” is embedded in political discourses aiming at maintaining the status quo while making individuals accept their place in a highly stratified society: “Incorporated into New Labour’s cultural policy, the social inclusion discourse leaned heavily upon a report by François Matarasso proving the positive impact of social participation in the arts. (…) social participation is viewed positively because it creates submissive citizens who respect authority and accept the ‘risk’ and responsibility of looking after themselves in the face of diminished public services. As the cultural theorist Paola Merli has pointed out, none of these outcomes will change or even raise consciousness of the structural conditions of people’s daily existence, it will only help people to accept them” (2012, p. 14). A deeper analysis on the issue of participation needs to necessarily render a comparison between these two concepts. This discussion is however a subject for further work.

\(^{21}\) Fraser’s account on *injustices of representation* is indebted to previous studies about power and social representation, namely to the work of Michel Foucault and, more recently, Judith Butler (see Butler, 1993).

\(^{22}\) It is important to mention, however, that community misrecognition in the case of Cultural Heritage also implies lack of access to resource distribution.
of each present generation is successively being forgotten, and (2) it increases the potential for antagonism between different publics and for what is declared as cultural heritage since it compromises the identification that communities might feel towards a work. And yet, as Fraser’s notion of justice suggests, as users of cultural heritage, communities should also have a co-responsibility for its preservation. As it will become clear, the case of Aljube’s prison, on the other hand, provides an excellent case-study on how memories can be collected and remmembered through the assessment of various perspectives.

Parity of participation: conservation in the public sphere

During the public talk at the Aljube’s prison (now Aljube’s museum) we discussed the renewal of the building with the people attending the event. Some of those people knew the building since it was still a prison. One of the participants recalled that the event was the first time they had entered the building, as it was always emanating the aura of the past: “I could not even look at it”, the participant recalled. Other participant spoke about how the grids in the windows, or the black curtains in the room, made him remember the past, as a resonance of the previous life of the building. The objectification and fetishization of the past were also a theme during this conversation, with a museum’s employee evoking that some people ask to be put in one of the small cells just to be able “to feel how it was like”. These views provide a summary on the possibilities around involving communities in the making of meaning of a building or historical site. The restoration of the building allowed people to continue to identify the building as a prison, potentiating storytelling practices around the memories of the place. Aljube’s museum has been a pioneer in the collection of stories and biographies by people who were placed in the prison, along with other people who opposed the regime. The identification those communities – i.e. the people who live in Lisbon, visit Aljube, or somehow contribute to Aljube’s repository of memories - is also promoted by their recognition.

This notion of community, perhaps somehow more inclusive, leaves conservation decision-making in a conundrum: being inclusive here arguably equates with becoming unmanageable. Indeed, although it would be possible for conservators to promote a participative action, by creating multiple open, physical and virtual fora where individuals from different communities could directly engage into the conservation process of a given object, that would inevitably raise some problems:

1. creating an issue with community representation as different communities may not be equally represented in the process;
2. making conservation processes more time consuming;
3. increasing the costs of conservation actions due to the employment of more (and more specialised) human resources in order to analyse the data;
4. transforming any conservation act into an openly political action, as many voices (the ones that would argue for the objects destruction, for example) would probably
not be considered, leading to an open process of censorship. Notwithstanding these problems, communities still need to be recognised as a legitimate stakeholder in order to promote a more just and diffracted decision-making process. In this sense, present generations are involved in the process of mattering collective and individual memories in their everyday life so their involvement in documentation could, considering Barad’s account, provide a corpus of diffracted perspectives which resonate across the materiality and (historical) discourse about the work. Moreover, by incorporating a diversity of ways of knowing buildings or sites, new material potentialities can emerge from the many different mattering processes. In embodying the idea of intergenerational justice (see Taylor, 2013), this idea makes visible the role that present generations need to have in the preservation of material manifestations of cultural heritage. It is important to acknowledge the limitations of any decision-making process, including the misrepresentation of communities. Such acknowledgement can take form in the work’s documentation such that by documenting all decisions, and including all stakeholders involved in decision-making, and including any engagement process, conservators in the present can make sure that future generations can make more informed and sustainable decisions, linking the past of the object to its future.

Conclusion

This paper discussed how public engagement could make conservation efforts more sustainable. While discussing the lack of inclusion in some conservation processes, it has argued that community misrecognition happens in conservation decision-making. This paper also suggested that it is possible to acknowledge the diverse and partial nature of documentation while recognising that some stakeholders have inevitably been missed in the process by including diffractive content from the decision-making process in any documentation file. Laurajane Smith’s notion of authorised heritage discourse provided the ideal framework to diagnose the process that led to the renewal of the building at António Maria Cardoso Street, in Lisbon as a process with where communities were alienated. In this sense, this paper also reflected upon how participation from communities could ensue the development of narratives that sustain the memories around a building or site. This issue is even more important taking into account the historical context that led to the transformations that occurred in those two buildings. Enhancing community participation might be a way to make visible the nuances of a time of political strain and its aftermath of historical erasure. Finally, although this paper explores the issue of sustainable heritage approaches in a different way, there is still much to explore regarding inclusiveness and parity of participation in heritage contexts. The same could be said about practical ways of engaging with communities and enhancing communities’ participation in conservation’s decision-making processes. Given

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23 See Jonathan Kemp’s Practical Ethics v2.0, where he gives examples about decisions which were made outside what is usually considered the conservation scope and yet influence the conservation process (Kemp 2009).
that “communities” is still an ambiguous notion, a systematic study about communities’ participation might need to be precluded by a theoretical examination. The association between “communities” and “place” provides a good starting point for this discussion. Shifting the focus from museums or centralised governmental and non-governmental institutions into local institutions and municipalities will allow for a geographical delimitation of cultural heritage communities. In this sense, pilot projects, such as the COMUS project “Community-Led Urban Strategies in Historic Towns”, could help find ways to enhance community participation through practice. The role of digital communities is also a topic of interest for future studies regarding community mis/recognition (the programme “Sharing is Caring”, developed by the SMK Denmark is worth mentioning as a point of departure).

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Abstract: Transdisciplinarity has shaped the development of both conservation science and conservation-restoration. The history of conservation science demands the commitment of all involved specialists to follow a common vision in the field. The present article highlights some key lessons to assist in closing the gap between the promotion of high-level research projects and the development and assessment of proficient professional practice in conservation science and conservation-restoration. The necessary framework conditions should also be brought to the attention of responsible politicians.

Reflecting on conservation theory and practice “at the turn of the millennium” I propose to take a closer look at interdisciplinary work devoted to maintenance of Cultural Heritage since the beginning of the 20th century.

Keywords: Transdisciplinarity, monitoring, quality assessment, mural painting, sepulchre

1. Historic Development of the field and the involved disciplines

Looking back into history we see the development of different disciplines, working for the maintenance of Cultural Heritage. The discipline of conservation-restoration in the modern sense – based on scientific analysis and aiming at minimal intervention and preventive conservation – would not have evolved without the development of investigation methods and their almost immediate application to the technical study of art (see also technical history of art) and cultural heritage.

The gradual integration of science into museums and conservation-restoration in general and the strengthening of the collaboration between conservator-restorers, conservation scientists, and curators constitute the early history of Conservation Science (Stoner and Rushfield, 2012).
The first laboratories in Cultural Heritage institutions, i.e. at museums and high schools, were set up in the last decades of the 19th century.

In 1888 the Royal Museums of Berlin was the first to establish scientific facilities (Nadolny, 2012). Friedrich Rathgen became chemist in charge and acted not only on the Museums’ artefacts: He began the first systematic research and monitoring project of the decay of stone and all kinds of buildings all over Germany that served for his investigations on the suitability of stone conservation materials. For this purpose, he placed over 1257 samples for direct and indirect weathering – 111 samples alone at the Cathedral of Cologne (Rathgen, 1916). He compared treated (with different materials) and untreated stones, took photographic records and revisited them every three years. This early and outstanding monitoring project has had no successor at this large-scale in Germany until today.

An important aspect of Conservation science and Conservation is documentation. Visual examination and documentation were fundamental for the study and development of strategies to preserve works of art from the beginning. A pioneer of this activity in museums was George L. Stout (Stoner, 2015), who after studying and teaching arts at Iowa University studied art history at Harvard University and worked as researcher at the art museum of Harvard University – the Fogg Museum. In 1928 he was appointed chief of the new laboratory of the museum, and working closely with the chemist Rutherford J. Gettens became one of the first conservator-restorers in the modern sense. Together with Rutherford he pioneered systematic documentation, describing the examination of paintings and all interventions. Stout also motivated museum directors to enable “long-range conservation” by “a specific and exact and permanent record of the appearance of a painting” (Stout, 1949) and thus he prepared the ground for standardization of museum records.

Regarding his background it is not surprising that he described conservation-restoration as a critical act: “The job of restorer can in no way be regarded as the mere execution of instructions defined entirely outside of it by the critic or the laboratory … The thought must always be there on alert, a thought that controls, interprets and adapts, i.e., continually creating because, like an aesthetic and technical problem, it resides within the work that it directs” (Stout, 1950). Stout coined the allegory of the “three-legged stool”, highlighting the need for interdisciplinary collaboration among scientists, art historians, and conservators (Stoner, 2015).

The “International Conference for the Study of Scientific Methods for the Examination and Preservation of Works of Art”, that took place in Rome in 1930, was organized by the International Museums Office (existing from 1926 till 1946, precursor of ICOM) under the umbrella of the International Institute of Intellectual Cooperation (existing from 1924 till 1946).

“Following this conference and beginning in 1933, twelve art historians, chemists, and conservators served as a ‘committee of experts’ to compile the Manual on the Conservation of Paintings (IOM, 1940). The manual, published in French in 1939 and English in 1940, listed the following ‘special methods of examination applied to pictures’: x-rays, ultra-
violet rays, infra-red rays, microscopy and microchemical examination, refractive index
determination, colorimetry to study 'pigments and colour mixtures', x-ray crystal structure
analysis (‘photographing the characteristic pattern of the rays resulting from diffraction
by crystals in the paint film’—even without taking a sample, the manual suggests), and
spectrographic examination of a sample of a few milligrams containing metallic constituents,
to form a 'pattern of lines on a photographic plate’. The compilers noted that methods
of absorption spectrography might be useful in the future to study binding media, organic
pigments, and natural dyestuffs.” (Stoner, 2015, § 53).

In 1948 the Archives Centrales iconographiques d'Art national et Laboratoire central des
musées de Belgique (renamed in 1957 Royal Institute of Cultural Heritage) were set up
following the dictum of its first director Paul Coremans that the different disciplines of
scientists, conservator-restorers, curators and art historians should work closely together
(Stoner, 2015). He called that the “interpénétration des disciplines” – a quite appropriate
expression anticipating the modern concept of Transdisciplinarity.

2. The principle of Transdisciplinarity

Under this term we understand a methodical approach to integrative research combining
forms of scientific and practical knowledge. It requires adequate addressing of the complexity
of problems and the diversity of perceptions of them, and requires the linking of abstract and
case-specific knowledge (Mittelstrass, 2003).

Hence a transdisciplinary process in conservation science is not only an interaction of the
involved disciplines but a new quality of integration of basic and applied knowledge and
research. When the very nature of a research subject is under dispute, transdisciplinarity
can help to determine the most relevant problems and questions involved.

Conservation science is a complex field and may be compared with other fields as engineering
science, research and management of ecosystems and human health (Noll-Minor, 2017).
These are fields, where transdisciplinarity is the prevalent research principle.

The transdisciplinary research process is organized in three phases that may be passed
through several times: identification and structuring of problems, working at and solving (or
at least mitigating) problems, valorization and transdisciplinary integration.

In conservation-restoration the first phase of identification and structuring of problems may
be interpreted as an investigation of fabrics and condition, as a search for causes and as an
identification of the needs of stakeholders. The object of Cultural Heritage may be regarded
as a complex structure with internal factors (fabrics, materials) which are in interaction
with the environment and which are influenced by aging and altering processes. The act
of inspection of the given object records just a single snapshot in a changing system. The
object is regarded through “filters” of description and analysis of fabrics, on the one hand, and
phenomena of aging and alteration on the other. The investigation and interpretation of the
findings lead from recording traces of design and alteration to the inference of the techniques
of creation as well as of the dynamics of alteration processes, their causes and potential threats. The problem solving phase includes the discussion and evaluation of intermediate results, it may lead to a decision for the need for appropriate further investigations, which may include the visualization of processes of change (looking into the past and/or in the future) and development of conservation approaches.

The discussion of values in cultural heritage is an example of valorization and transdisciplinary integration as an outcome of the investigation of its fabric, its condition, and its immaterial meaning. This includes the integration of conservation approaches into broader strategies that negotiate maintenance and use.

Another aspect or meaning of transdisciplinarity, namely “to develop knowledge and practice that promote what is perceived to be the common good” (Hirsch 2008) relates to a discourse on approaches and concepts in relation to Cultural Heritage within a broader professional and social context.

In the Faro Convention on values of cultural heritage (Faro 2005) a postulate has been expressed, which is particularly challenging for Conservator-restorers as it provokes a rethinking of prevalent and familiar theoretical and practical approaches in conservation sciences and ethics: It says that cultural heritage is renewable under certain circumstances and lead to a provoking definition of conservation as “management of change”. Dean Sully (2007) describes it as follows: “Conservation is a process of understanding and managing change rather than merely an arresting process; it is a means of recreating material cultural heritage that seeks to retain, reveal and enhance what people value about the material past and sustain those values for future generations… objects are conserved because they are valued for the effect they have on people“. (Sully, 2007, p. 39)

Conservation specialists recognize material cultural heritage more than ever as a fragile and non-renewable resource that enhances the quality of material, mental and spiritual life in our diverse cultures. It is a challenge and requires efforts to understand its complexity in each unique case, to communicate its value to society in order to enhance the interest to preserve it and finally to preserve its structure in all efforts to make it readable and useful for society (Noll-Minor 2014, p.76).

3. Recent examples of transdisciplinary research and practice

The following case studies exemplify the relevance of the transdisciplinary integration of research and practice in Conservation science and Conservation-restoration of Cultural Heritage.
3.1 Case study A: Low-Tech-Monitoring of medieval wall paintings in Brandenburg (Germany)

The systematic examination and documentation of medieval wall paintings and architectural surfaces is closely connected to developments in transdisciplinary research. Between 1987 and 1991, the German Federal Ministry for Research and Technology funded joint research projects entitled “Deterioration of mural paintings” (Segers-Glocke, 1994; Behrens et al., 2005) and “Deterioration of stone”, which contributed substantially to the establishment of a scientific approach to the preservation of cultural heritage. Results of these projects included an attempt to normalize conservation measures through the formulation of standards (VDI, 1987; ICOMOS, 2003). The standards are currently being revised in reference to European and International standards.

Rising expectations for scientific investigations and documentation are often at odds with the financial means of the owner or responsible party, once research projects come to an end and give way to the daily reality of preserving historical monuments. This discrepancy has been receiving critical attention for quite some time. Therefore, the following criteria ensuring a methodological approach in the development of condition assessment and documentation have been proposed (Wong, 2000; Wong, 2003): In defining the level of detail and complexity of the condition assessment and associated documentation of the object, geographical and temporal conditions as well as the goal of the documentation should be carefully considered. This includes, prior to initiating the monitoring process, recording the extent and current condition of the wall painting with consideration of its physical and conservation-restoration history, as well as an investigation of deterioration processes and risk assessment. Furthermore, there is need for research in the field of development of “low-tech-monitoring” procedures (Laue et al., 2008).

Current research within the federal state of Brandenburg regarding the investigation of extent, physical history, technique and condition of medieval plasters and wall paintings includes the results of two projects entitled “Environmental deterioration of historic plaster and mortar: research and conservation” (BLDAM, 1998) and “Environmentally induced pigment alteration of the gothic mural paintings in Ziesar castle and St. Mary’s Church, Herzberg” (Fig.1, BLDAM, 2009), both funded by the Deutsche Bundesstiftung Umwelt (DBU, German Foundation for the Environment).

A recent project (also funded by the DBU) has been focusing on “Developing model conservation concepts by recording and monitoring medieval wall paintings in the northeast of Brandenburg that have sustained human-caused environmental damage” (BLDAM, 2018). It had two main branches of activity: 1. Creating an inventory of medieval mural painting of this region; 2. Developing a structured methodological approach in the development of condition assessment and its documentation.
Medieval wall paintings and architectural surfaces dating between the 13th and 18th centuries in about 50 churches have been recorded and published in the second volume of an inventory of medieval wall paintings in the federal state of Brandenburg (BLDAM, 2019). This region's highly significant cultural heritage boasts several famous examples of the Northern German Gothic brick style architecture. Within the project, twelve parish and monastic churches have been considered in more detail, among them, St. Mary’s Church (Fig. 2) in the former Hanseatic City of Frankfurt (Oder) with its unique medieval wall paintings decorating both its interior and exterior (Fig. 3-5).
Both the current state of research and decades of in-situ experience confirm that avoidance of costs arising from large-scale conservation-restoration campaigns can be achieved through the development of a structured and continuous monitoring program specifically tailored to the site. The basis for such a monitoring program is created with the help of interdisciplinary surveys and consultation of exemplary research on medieval wall paintings and architectural surfaces. This includes the art historical investigation of the paintings, some of which are scarcely known, as well as examinations of historical church and monastery architecture in the field of building research. Seen from the vantage point of monitoring, these types of investigations are indispensable, as they enable the prioritisation of interventive measures. When a significant object is at risk, a higher urgency is assigned to the intervention. This risk assessment also serves as a guideline for how parishes should invest their funds, and informs co-funding provided by church administration and subsidies from the federal state of Brandenburg.

A key component of the monitoring process is the scientific investigation of the extent and condition of wall paintings. These investigations can be implemented first using simple visual methods, such as the examination and photographic documentation of the objects using incident, raking and UV light). Research/analysis of archival materials also plays an important role. The known facts about the conservation-restoration history of the objects should be taken into account in the assessment of their actual preservation states.

The study of original (plaster and painting) techniques, the characterization of deterioration of the paint and plaster layers and the identification of the causes of these degradations are also essential steps of the interdisciplinary survey. These studies inform our conception of...
the original appearance and highlight ongoing deterioration processes. Scientific investigations focus on the analysis of constituent materials and techniques, damaging salts and contaminants (pollutants), environmental monitoring (temperature and relative humidity), and lead to more complex questions regarding, for instance, pigments’ alteration in wall paintings. Environmental factors, such as climate and salts, can cause drastic changes to the appearance of the often fragmentary painted surface, sometimes resulting in false conclusions regarding iconography. For example, as a result of such studies, the identification of the iron pigment, vivianite, originally blue in appearance, was made possible despite the fact that today it is most frequently observed in its altered state displaying a brownish-yellow appearance. This discovery provides insight into colour iconography: A significant example is the inner “space” of the mandorla in the depiction of Christ as the Pantocrator in the wall painting panel at St. Johannis church in the town of Brandenburg which was originally meant to appear blue as a view into heaven (Fig. 6). In depth studies are of importance in order to understand how environmental parameters can have an influence in the chemical degradation of the mineralogical constituents of the paint layers.

Fig. 6 Brandenburg, St. Johannis, Christ as the Pantocrator (judge of the world), 2016; Photo: Mechthild Noll-Minor

These studies are carried out in cooperation with the Potsdam University of Applied Sciences, the University of Potsdam and the Bremen Institute for Materials Testing (MPA)
using complementary analytical techniques including X-ray Fluorescence (XRF), polarization microscopy, Scanning Electron Microscope coupled with Energy-dispersive X-ray spectroscopy (SEM/EDX) and Raman spectroscopy (Fig. 7). Such background knowledge is a prerequisite for a more in-depth characterization of changes in paint and plaster layers, providing insights into possible mechanisms of deterioration and enabling the evaluation of risks to the wall paintings and architectural fabric as part of a monitoring program. These studies also helped to identify a range of reference areas selected for long-term monitoring, which can be used for repeated condition assessment over time. For selected objects, it was possible to carry out in-depth graphic documentation of extent and condition in connection with conservation measures, at times with the support of research undertaken by students.

Fig. 7 Angermuende, sacristy; Chorin, monastery and Frankfurt (Oder), St. Mary’s church, investigation by Raman spectroscopy and mobile XRF, 2016; Photo: Martin Ziemann

Using this relatively complex and somewhat time-consuming method to build a basis serves to ensure high quality monitoring, thereby facilitating resource-saving and sustainable cultural heritage conservation. Instead of striving for large-scale, far-reaching conservation interventions, the aim is to perform regular controls and implement small-scale conservation measures to minimize material, financial and professional costs and reduce the strain on cultural heritage as much as possible.

The low-tech monitoring procedure developed as part of a project (BLDAM, 2017) shall be used as a model for ‘best practice’ for future projects dealing with in-situ decorative schemes in churches and monuments.
3.2 Case study B: Holy Sepulchre of the former monastery Neuzelle in Brandenburg (Germany)

The village and former monastery Neuzelle is situated in the state of Brandenburg, south of Frankfurt (Oder) and close to the Polish border. The Holy Sepulchre of Neuzelle with its five stage sets and 15 figural scenes is a stage installation or “passion theatre” with an extraordinary rich theological and narrative content (Noll-Minor, 2005). Alongside the main stations of the “Way of the Cross,” it comprises also scenes and citations from the Old and New Testament incorporating deictic realizations of theological concordances (Fig. 8 and 9).

![Fig. 8 Neuzelle, former monastery, Holy Sepulchre, scene Judas Kiss in stage set Garden, temporary installation in the Conservation studios of the BLDAM, 2004; Photo: Dieter Möller](image1)

![Fig. 9 Neuzelle, former monastery, Holy Sepulchre, scene Bearing of the Cross in stage set Civitas, installation in the museum “Himmlisches Theater” at Neuzelle, 2004; Photo: Mechthild Noll-Minor](image2)

From a cultural point of view, it is interesting to mention the historical “cross-cultural” context of the passion theatre Holy Sepulchre at the time of its creation. In the middle of the 18th century the monastery of Neuzelle formed a Catholic enclave in a Protestant neighborhood. The creation and subsequent liturgical use of such a large-scale program of scenes and figures was obviously motivated by this specific circumstance. It is evident that the intention was to impress, to educate and to proselytize. Texts from the Old and New Testament have been incorporated in order to communicate and to explain the respective contents, both, to the Catholic and to the non-Catholic population. (Töpler, 2005)

The conservation project was closely connected with the investigation of different aspects of the historic background and liturgical use of the passion theatre. The knowledge of the
immaterial aspects of the object together with the results of technical investigation of the original substance, shape, traces and condition report contributed to the conservation approach and concept for future presentation.

Together with the main installation of the Neuzelle Holy Sepulchre a paper model (built to a scale of one to ten) has been preserved, that dates back to 1751. It shows 4 of the 5 stage sets and almost all of the 15 figurative scenes. Both – the model and the theatre – have been created by Joseph Felix Seyfrit from Bohemia, “Pictor et Architectus”, who signed on the reverse of the main figure in the scene Judas’ Kiss (Fig.8). For the creation and production of the passion theatre he must have had assistants and co-operators in his studio (Venhorst, 2005 and 2015).

Although the 261 single components of the passion theatre were in a desolate state when found and often broken into even more pieces, it was possible to identify almost all of them prior and during their technological investigation.

All traces and holes from nails, screws, pins and all marks left by frequent use, by assembling and by dismantling the giant object were investigated and precisely mapped. The IT-supported evaluation of these traces led to various conclusions. Every backdrop shows nail holes of candleholders and sometimes traces of soot and wax on its reverse. The comparative evaluation of the traces demonstrates that every figure was illuminated by lights mounted on its preceding backdrop, according to its individual height and dimension. One of the scenes – the “palace” - represented “artificial light” through the use of glass globe (sphere), filled with colored water and illuminated by candles – thus shining through round holes in the backdrops.

The last presentation of the theatre in liturgical function dates from 1863. Damage, expenses for the annual installation, and finally an outdated style of the theatre led to the abandonment of this tradition. There are inscriptions with date specifications on the reverses of the backdrops, which indicate that in the last decades of use only one stage set with two or three scenes had been presented in conjunction with the (possibly more recent) resurrection scene according to a seven years rotation principle.

During the following 140 years all parts of the passion theatre suffered from moisture and decay because of inadequate handling during rearrangement etc. In the first half of the 20th century toxic pesticides on the basis of DDT (Dichlorodiphenyltrichloroethane) and Lindane (Gamma-Hexachlorocyclo-hexane) were applied against insect infestation. The high content of DDT at the surface and subsurface of all pieces of the theatre made the handling a potential risk for the conservator’s health. The problem of decontamination was subject to a research project together with the Rathgen Research Laboratory in Berlin under the direction of Achim Unger in the years 2002-2003. This research was carried out within the framework of a joint project sponsored by the Deutsche Bundesstiftung Umwelt (DBU) as well as in immediate cooperation with the conservator-restorers. – The “state of the art” decontamination of wooden artefacts using a vacuum washing procedure has been integrated subsequently in a technical specification of the Wissenschaftlich-Technische Arbeitsgemeinschaft für Bauwerkserhaltung und Denkmalpflege (see following chapter).

At the turn of the millennium a European Rafael project “Actors in Cultural Heritage and the legislation” (APEL, 2001) under the direction of E.C.C.O. (European Confederation of Conservator-restorers organizations) could be accomplished. The scope of the project was to review the existing legislation and the real interdisciplinary practice in Cultural Heritage. The obtained results gave a deeper insight into the common work and efforts of different players to “preserve” or “maintain” Cultural Heritage. The project led to the formulation of Guidelines for the framework of professional practice in Conservation-restoration.

4.1 Conservation process and required competences for access to the profession of Conservator-restorer

The implementation of this procedure in conservation–restoration projects guarantees the quality of the interventions and the long-term preservation of cultural heritage if the following competence and quality requirements are followed and the allocation of specific budgets is provided. (APEL 2001):

Inception of conservation projects: The involvement of conservator-restorers in the development of strategic and managerial policy concerning cultural heritage should be explicitly anticipated and specified.

Preliminary examination, diagnosis and decision on intervention: This essential stage of a conservation-restoration project, including documentation, requires the allocation of a specific budget.

Project formulation and its approval, implementation planning: The responsibilities of each of all actors involved in this stage (owner, public authority, conservator-restorer, architect, engineer, etc.) must be identified. The role of the conservator-restorer as conservation specialist in the project formulation should be explicitly anticipated and specified.

An example of the correspondence between the planning activities of conservator-restorers and architects is given in the following scheme in accordance with the Fee Structure for Architects and Engineers (HOAI) (Fig.10).

The required competencies of conservator-restorers have been elaborated and explained through a concept scheme of the conservation process together with a taxonomy of knowledge (Corr et al., 2011).
**Conservation-restoration specialist planning**

in accordance with the **Fee Structure for Architects and Engineers (HOAI):**

- **phase 1.** project inception, including basic evaluation and preliminary investigations
- **phase 2.** preliminary planning with sizing estimate
  - preliminary examination, diagnosis and decision on intervention
- **phase 3.** project planning with preliminary estimate
  - project formulation including advanced examinations and tests
- **phase 4.** approval planning
  - formulation of „conservation-restoration plan”
- **phase 5.** implementation planning with Commitment estimate
- **phase 6.** specifications for tender
  - implementation planning and specifications for tender
- **phase 7.** participation in award of contract
- **phase 8.** building surveillance, construction management or site supervision
  - specialised site management
- **phase 9.** object maintenance and documentation (including scientific management and monitoring)
  - evaluation of intervention and documentation

Fig. 10 Scheme of correspondence of Conservation-restorer specialist planning with HOAI, Mechthild Noll-Minor, 2014; Photo: Mechthild Noll-Minor

### 4.2 Dissemination of research results, implementation into technical specifications and strategies of maintenance.

In the first instance, the results of research projects are communicated in scientific articles. But beyond that the research outcome needs to be made accessible for decision makers and to be linked to other activities in the sector of Cultural Heritage in order to close the gap between high level research projects and the development and assessment of proficient professional practice in Conservation science and Conservation-restoration.

Quality assessment of good professionalism through standards is attractive to politicians and decision makers. Research increases know-how in the field. Hence the transfer of knowledge from research results through state-of-the-art descriptions in guidelines and standards is a challenging process. Therefore, the experts involved in standardization have to carefully assess what kind of professional activity is suitable for standardization. A critical review of the existing and drafted standards is necessary to prevent the community from all too mechanistic procedures in the regulation of their work which do not reflect the state-of-the-art in conservation science and conservation.
“Best practice” in German speaking countries are the activities of the Wissenschaftlich-Technische Arbeitsgemeinschaft für Bauwerkserhaltung und Denkmalpflege (WTA - Scientific technical association for building maintenance and monument preservation). The association supports the dissemination of research results and its practical application in the field of building maintenance and monument preservation through publication of procedures and methods in technical specifications, thus enhancing the application of new findings and modern technology. To achieve these objectives, an intensive dialogue between researchers and practitioners has been established. WTA fulfills these tasks by hosting expert dialogues, seminars and conferences and by working out and publishing guidelines on current topics by specifically appointed working groups. During its 25 years of existence, the association WTA has produced a great number of technical specifications, and materials are being certified according to WTA-standards. The commercial value of these certifications is based on the scientific value of the WTA-specifications.

4.3 Institutional funding of long term Conservation science projects and service for Cultural Heritage

The history of Conservation science has proven that long term projects and close collaboration are essential to perform research in this field. During the “ICCROM Forum on Conservation Science”, held in Rome 2013, the leading role of conservation institutions has been described to further develop and promote the relevance of Conservation science as a transdisciplinary field (Corbeil, 2015): „The first message is a general statement of the fact that conservation science is an essential part of conservation. The other messages provide guidance to conservation institutions so that they can achieve maximum impact. Conservation institutions should engage in research and development that anticipate issues, provide sustainable solutions and guidelines, and are conducted in a transdisciplinary way.” Conferences and colloquia organized by these institutions enable the sharing of expertise via research results and practical experiences.

The assessment and funding of conservation science projects should take into account - among other criteria – the amount of transdisciplinarity in the collaboration of the involved partners.
References


QUALITY PARAMETERS IN CONSERVATION-RESTORATION CHOICES – THE CASE OF THE TOWER OF THE WINDS IN ATHENS

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Abstract: The chemistry- and physics-based approach of conservation has led to the view that conservator-restorers use quantitative criteria which provide objective choices. Today, however, there is a shift of focus from material-centred to people-oriented approaches within the field of heritage preservation. This shift leads to a redefinition of the conservation-restoration field and its ethics in relation to society and calls for the adoption of diverse methodologies. Within this context, this paper discusses the qualitative factors which inform decision-making processes in conservation-restoration practice. More specifically, the paper examines the case of the so called “Tower of the Winds” in Athens and looks at the quality parameters which informed conservation-restoration work carried out at the Tower during 2014-2015. Overall, it is shown that the prominence of the quality parameters which inform contemporary conservation-restoration practice reveals the subjective dimension of conservation-restoration choices. The research has also showed that current trends tend to emphasize the historical rather than the aesthetic or other values of monuments.

Keywords: Conservation/restoration, quality parameters in decision-making, Tower of the Winds, Athens

1. Introduction

The view of conservation-restoration as a scientific discipline based on chemistry and physics, which prevailed during the 20th century, has led to the notion that conservators use quantitative criteria which are indicated by the physico-chemical properties of materials, and therefore provide “objective” choices (Muñoz Viñas, 2005). Today, however, there is a shift from material-centred to people-oriented approaches within the field of heritage preservation. This shift, which is in line with the anthropo-centric turn in cultural heritage management at large, leads to a redefinition of the conservation-restoration field and its ethics in relation...
to society (Avrami, 2009) and calls for the adoption of diverse methodologies which may greatly benefit from the toolkit of social and cultural studies (museum studies included).

Within this context, and as part of a larger study on the role of conservation in the interpretation of monuments (Papadopoulou, 2017), this paper discusses the qualitative factors which inform decision-making processes in conservation-restoration practice. More specifically, the paper examines the case of the Horologion of Andronikos of Kyrrhos (also known as the Tower of the Winds) in Athens¹ (Fig. 1), as an example of a monument with a long history in the application of conservation-restoration practices from the 19th century to date (EACA, 2016). The Tower of the Winds (henceforth the Tower) is a unique architectural monument, which is preserved intact, and stands as a landmark for an entire area in the old city centre, known widely as "Aerides" (Winds).

After a brief introduction to the monument’s history, the paper presents the main research questions and the methodology used and discusses how they were applied to the conservation-restoration work at the Tower.

Fig. 1 The Tower of the Winds, Athens (photo credit: Greek Ministry of Culture & Sports - Fund of the Archaeological Proceeds)

2. The Tower of the Winds

The Tower is located under the northern slope of the Acropolis, within the Roman Agora of Athens. It has a 2,000-year long biography, in which diverse cultural groups succeeded one another, while its original operation still puzzles scientists today. The 14-metres-tall Tower was built most probably at the end of the 2nd century BC by the architect and astronomer Andronikos of Kyrrhos. The octagonal monument is made entirely of Pentelic marble except for the foundations (ΕACA, 2016). Atop its fully preserved roof rests a Corinthian capital which possibly served as the base of a bronze wind vane in the form of sea god Triton. Beneath the roof is a frieze bearing the personifications of the eight wind deities, which are depicted in high relief. Further below, incised lines form an equal number of sundials on the exterior of each side of the building. To the best of our knowledge, a hydraulic mechanism operating in the interior of the building, powered a water-clock or a ‘planetarium’ device (Noble & de Solla Price, 1968). Nothing of the original mechanism survives.

During the Byzantine period, and even after the fall of Athens to the Ottomans in the 15th century, the monument served as a Christian church. In the late period of the city’s Ottoman occupation, the building was also used as a tekke (meeting place) of the Mevlevi order (a Sufi order also known as the Whirling Dervishes). In 1838-1839, that is after the foundation of the modern Greek state, the monument (which was by that time partly buried) was unearthed in its entirety during excavations by the Archaeological Society at Athens. In the years that followed, there were sporadic and undocumented interventions in the monument. In 1845, for example, an attempt to reconstruct the sundials led to the installation of new metal gnomons. Later conservation work was primarily targeted at consolidating the roof and the exterior of the Tower. The interior of the monument attracted very limited interest and was until recently used as a warehouse for scattered finds (Papastamatiou & Fotopoulou, 2011).

An extensive programme of conservation-restoration work funded by the National Strategic Reference Framework 2007-2013 was carried out during 2014-2015. Several multidisciplinary teams were employed in the project, while its management was entrusted to a scientific committee consisting of two conservators, one archaeologist, one architect and one civil engineer. Priorities included securing the monument’s preservation, saving any surviving historical information, and making the monument available to researchers and the public (ΕΑCΑ, 2016).


Which are built of a kind of porous stone.

For a comprehensive history of the monument see Kienast 2008 and 2013; Webb 2017. See also Robinson 1943.

The most extensive and systematic interventions took place during 1915-19 by architect and archaeologist Anastasios Orlandos and in 1976 when the Greek Archaeological Service conducted consolidation and conservation work under the supervision of archaeologist Maria Brouskari.
3. Research questions, methodology and results

Basic research questions included *why*, *how*, *who* and *for whom* we conserve. Our work aimed at an in-depth study of the decision-making processes which informed conservation-restoration work carried out at the Tower during 2014-2015 and included archival research and semi-structured in-depth interviews with two conservator-restorers and the archaeologist involved in these interventions. In addition, a small pilot visitors’ study was carried out for understanding the impact of conservation treatments on the public’s perception of the monument. According to the key research questions referred to above, the main results of the study are as follows.

3.1 *Why do we conserve?*

Conservation-restoration’s primary aim is to *preserve* monuments. While preserving monuments’ materiality, however, conservation-restoration also helps disseminate their perceived “significance” for the present and future generations (Caple, 2009). Obviously, the “significance” or “value” that each era attributes to specific monuments guides the decision-making process. In the late 20th century, for example, emphasis was placed on the educational function and the historical value of monuments, a trend which has led in recent years to the emergence of conservation-restoration as a tool for studying monuments. Today, however, one important motive for conservation-restoration is to make monuments accessible to the public. As the head conservator at the Tower put it: “Conservation-restoration enters the zone of studying monuments.” Visitors on the other hand reported that the aim of conservation-restoration is: “To keep history alive for future generations” or “to preserve and understand past experiences, skills and beliefs”.

Treating decay is another strong motive for undertaking conservation work, in cases where decay is causing undesirable alteration (considered as “damage” in the eyes of the public). Today there is a growing awareness that damage reflects a monument’s history and environment. So, when is damage considered undesirable? During the latest interventions in the Tower, decay was considered undesirable when it threatened the monument’s preservation, especially its stability.

Another reason behind conservation-restoration is to “control” time. Conservator-restorers’ attitude towards the traces of time range from an effort to cover them up to their highlighting. It is now widely accepted that the cultural biography of monuments is their most important attribute, while the notion of reversibility and the return to a supposedly “original” state is a rather arrogant attitude (Smith, 1989). But, even though the signs of time are considered

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6 Due to time constraints interviews with other stakeholders were not included, while the architect and the civil engineer who were members of the scientific committee were not available.

7 *Decay* is any chemical or physical modification of the intrinsic stone properties leading to a loss of value or to the impairment of use, while *damage* is the human perception of the loss of value due to decay (ICOMOS-ISCS, 2008, p. 8).
valuable today, there is still a tendency to "freeze" time at a specific juncture (Tournikiotis, 2010), thus limiting any potential messages that each consecutive era may add to the monument in question. During the 2014-15 interventions in the Tower all traces of the monument’s history were respected if they were not considered a threat to the monument’s preservation, in which case they would be seen as an undesirable alteration.

3.2 How do we (decide what to) conserve?
An important question examined was the relationship between conservation-restoration and the documentation of monuments, and how this relationship affects decision-making processes. The contribution of conservation-restoration in exploring a monument’s cultural biography is acknowledged (Berducou, 1996, Philippot, 1996). At the same time, however, care must be taken to ensure access to information for future generations, bearing in mind that sometimes the revelation of certain information may require the sacrifice of latent others (Ashley-Smith, 2009). In the Tower’s case, meticulous documentation and keeping conservation records was a priority, while interdisciplinary collaboration helped to improve research and recording techniques.

For example, the latest interventions confirmed the Christian use of the monument, but also revealed traces of ancient decoration:

“Conservation-restoration may help uncover unknown facets of the monuments [...] Byzantine frescoes [...] definitively confirmed the use of the monument as a church.” (Head archaeologist)

“The mere fact that conservation-restoration begins, helps the study of the monument. Sometimes you can read the monument only in such close contact [...] And the monument has always different things to say. And it doesn’t stop here, because we don’t know what the conservation-restoration of the same monument will give to researchers and conservators who will follow.” (Wall painting conservator)

We also examined decision-making processes which guided cleaning treatments. Cleaning is a common intervention, despite its being a non-reversible procedure. Cleaning cannot be described as an "interpretive neutral process", as it is a conscious choice to remove or maintain certain elements (Eastop & Brooks, 1996 in Caple, 2000, p. 99). But, which reasons indicate the need for cleaning nowadays? It seems that while conservation aims to not visually affect monuments, a cleaned surface demonstrates care for monuments to the lay public (Caple, 2000). In the Tower’s case, for example, cleaning was carried out mainly where it was considered vital for the preservation of the monument or because it served documentation purposes. But, the decision not to remove the black crusts (Fig. 2), despite the concerns (mainly expressed by archaeologists) that this might be associated with the Archaeological Service’s inability to take care of the monument, caused controversy. In the words of the head conservator:
“[We had] to convince the rest of the group that the monument will remain ‘dirty’. The [opposite] argument was that [...] people would think [...] we did not do our job properly.”

Overall, the evidence from this study suggests that the pursuit of a monument’s original image or aesthetic unity have decreased as arguments towards cleaning.

Fig. 2 Black crusts on the Tower’s frieze, Tower of the Winds (photo credit: Greek Ministry of Culture & Sports - Fund of the Archaeological Proceeds)

Then came the question of how we deal with loss of material. The quest for integrity and aesthetic unity which had prevailed in the past led to “creative reconstructions” which produced interpretations revealing more about the context within which they occurred, than about the original image of the monuments conserved and restored (Walden, 1985). In order to moderate such interpretive propositions, contemporary conservation ethics suggest the search for equilibrium among the aesthetic, the historical and the physical properties of monuments (ECCO, 2003, Article 5). But, how can such an equilibrium be achieved? In the Tower’s case, the 2014-15 interventions are indicative of a tendency to limit the addition of materials to what is absolutely necessary for the protection of the monument, serving functional rather than aesthetic needs. This approach is in line with the principle of minimal intervention.

However, we often face dilemmas about balancing conservation ethics with demands regarding the educational and communicative role of monuments. Innovative technologies
such as virtual methods of presentation, for example, have been used as a solution to this problem, as they offer visitors visual interpretation which does not depend on the addition of materials. But, as many scholars note (e.g. Hodder et al., 1995 in Georgaki, 2012), these visual aids may sometimes demote the "intellectual process of filling the gap", which contributes to the understanding of an object.

Fig. 3 Zephyros (West wind), past intervention, Tower of the Winds (photo credit: Greek Ministry of Culture & Sports - Fund of the Archaeological Proceeds)

We further studied attitudes towards different historical phases and previous conservation-restoration interventions. As stated in the Charter of Venice (ICOMOS, 1964, Article 11), “remarkable additions” should be preserved and their removal “can only be justified in exceptional circumstances”, following a collective decision taken by a multidisciplinary team. But, the identification of “remarkable additions” involves subjective criteria. In the Tower’s case, this became clear in the debate about an “addition” on the face of the wind Zephyros (which does not serve functional needs) (Fig. 3). In the end, and after consultation with other scientists, the view in favour of preservation prevailed. The different views expressed on the matter are elucidating:
“I take as an example the wind Zephyros, the face of which had been filled [previously] with cement mortar. This filling was conserved and maintained although not all of us agreed […] I believe that it ought to be removed […] as it was done with cement mortar […] which, in my view, is a non-compatible material. This was an unnecessary intervention.” (Head archaeologist)

“[…] the full face [of Zephyros] was erased. In the bibliography, however, it is known with this past intervention which is quite good and must have been the result of study […] For this reason and because we didn’t know when the addition was placed, we decided to keep it.” (Head conservator)

“As for the lionheads [there is an addition on one of them; Fig. 4] it could be argued that this [addition] serves a functional purpose, [that is] better drainage of rainwater from the monument’s roof […]. This could have been removed too and be replaced with a new one, but since it serves a functional need no question of its removal was raised.” (Head archaeologist).

Fig. 4 Preservation of a lion’s-head addition which helps rainwater drainage from the roof, Tower of the Winds (photo credit: Greek Ministry of Culture & Sports - Fund of the Archaeological Proceeds)
Overall, functional needs seem to be rated as more important than aesthetic ones. We could suggest that the preservation of older additions provides a middle ground between current trends that discourage reconstruction and demands for readability and stability. This attitude is in line with the principle of minimal intervention while it also recognises the historical significance of older additions. This view is reinforced by the argument that removal could cause further damage.

However, although the preservation of the Tower’s current state was a priority, the desire to provide evidence for the interpretation of the monument to the public meant that choices had to be made occasionally about traces dating to different historical phases. Figures 5 and 6, for example, show a slab where it was decided to remove a plain and largely loose Ottoman coating to reveal traces of painting which confirmed the Christian use of the monument. Overall, however,

“all phases of the monument were respected, including 19th century graffiti, visible at the lower part of the building’s interior.” (Wall painting conservator)

Fig. 5 and 6 Ottoman vs Christian traces of paint and coatings: searching for evidence to solve issues of interpretation, Tower of the Winds (photo credit: Greek Ministry of Culture & Sports - Fund of the Archaeological Proceeds)

3.3 Who conserves/decides?

We already referred to the interdisciplinary team which worked at the Tower and to some of the debates that occurred. But, how effective can communication be within an interdisciplinary team? How are tensions resolved? And, who is responsible for the final decisions?

Decisions about conservation-restoration were the result of a dialogue in which all members of the team participated. Cooperation with other bodies and scientists was welcome and helped to resolve disagreement.\(^8\)

\(^8\) Overall control of the project, however, lied with the relevant bodies of the Greek Ministry of Culture, which had to approve all plans submitted by the conservation team.
“A work of this scale requires collaboration. There were engineers, topographers, manual workers, conservators. I think we all gained from this […]” (Head conservator)

“To me this particular project was a very positive experience as I had the chance to collaborate with colleagues from different disciplines and improve my [sense of] co-existence with other fields […] I believe that collaboration was fruitful. All decisions were taken after exhaustive discussion and any disagreements were resolved with the monument’s benefit in mind.” (Head archaeologist)

But, despite the high degree of satisfaction reported, there were still some hierarchy issues among different specialists. It is true that conservation-restoration professionals in Greece are still struggling to distinguish themselves from other heritage professions and establish their scientific status and professional rights. This is particularly acute as professions involving manual activities are still ill-recognised in the country. All the above lead to a certain lack of confidence on the part of conservator-restorers, low status in the hierarchy and obstacles to the diffusion of knowledge and communication among different professionals in the heritage management field at large (Brooks, 2013).

3.4 For whom do we conserve?

Conservator-restorers are expected to preserve cultural heritage for both the present and future generations (ECCO, 2002). Within this context, making monuments accessible to wider audiences is an important motive for conservation-restoration practices. In the Tower’s case, “Making the monument accessible to the public for the first time was a priority from the beginning” (Head archaeologist) something that was valued by visitors (“I appreciate that we can go inside the Tower”).

Apart from facilitating physical accessibility, it is also crucial to ensure a monument’s readability by visitors. In the Tower’s case, it seems that conservation-restoration work has succeeded in making the monument comprehensible: “I like the Tower because it is well preserved and therefore understandable. Not just a bunch of stones” (Visitor). Yet, extreme caution is required when considering the best possible conservation-restoration techniques, as sometimes a specific intervention can make one historical phase stand out as more “readable” than others, thus obstructing visitors’ ability to recognise these phases (Ashley-Smith, 2009). In fact, deciphering the degree of conservation-restoration puzzled several visitors to the Tower:

“I always wonder what is original and what is added due to conservation”; “how do you recognize the interventions?”;

“how much of the monument has been reconstructed?”

It should be noted that, although conservator-restorers participate increasingly in activities which aim at communicating and interpreting their interventions to the public,
such activities are limited, and are usually done occasionally on the margin of their main professional duties. According to many in the field, however, collaboration among heritage professionals with diverse backgrounds is essential in order to enhance visitors’ understanding of monuments (Mertzani, 2008, Spantidaki, 2005). This is even more crucial as many heritage professionals do not have a clear view or understanding of the public’s expectations on conservation-restoration (Pye, 2001, H. Jones, 2002, Williams, 2013).

4. Discussion

4.1 Subjectivity and conservation ethics

The discussion so far has revealed the subjective dimension of conservation-restoration choices. No decision, non-intervention included, is neutral, as all decisions are interpretive propositions (Muñoz Viñas, 2005, Smith, 1989, Villers, 2004). Fundamental principles of conservation-restoration such as minimal intervention and reversibility, are subjectively interpreted in order to balance the positive and negative effects and justify decisions (Melucco Vaccaro, 1996, Marçal, Macedo & Duarte 2014). In the Tower’s case, for example, where the emphasis was placed on adhering to conservation ethics, minimum intervention had to ensure certain conditions, such as guaranteeing the preservation of the monument, research and documentation needs and facilitating public access.

Regarding the concepts of authenticity and the “one and only true nature”, contemporary approaches (e.g. The Nara Document on Authenticity, ICOMOS, 1994) encourage the view that monuments have a rich, multifaceted, cultural biography (M. Jones, 1994, Ashley-Smith, 2009). The quest for a monument’s "true nature" is simply a fallacy as any choices leading to highlighting a certain “truth” is at the expense of other possible “truths” that may co-exist in the monument (Muñoz Viñas, 2005). According to the criteria of our time, if interventions do not mislead, they are not considered to affect the authenticity of monuments (Kemp, 2009). Our study has showed that since the preservation of all messages that a monument bears is practically impossible (Muñoz Viñas, 2005, McClure, 2013), current conservation-restoration trends emphasise a monument’s historical rather than aesthetic or other values.

4.2 Context

Overall, it has been shown that the prominence of the quality parameters which inform contemporary conservation-restoration practices reveals that our choices are shaped by (and reflect) the socio-political and ideological context of our time. Understanding the parameters which shape this context is a key factor in evaluating interventions and making decisions.

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In the Tower’s case, for example, the results of the pilot visitors’ study showed that the concerns of the scientific committee that the degree of cleaning and the equipment placed to protect the monument would disturb visitors were unsubstantiated.
5. Challenges and prospects

It is widely accepted today that the field of heritage conservation-restoration should be redefined in relation to contemporary society and current needs (e.g. Clavir, 2009, Cane, 2009, Matero, 2000, Richmond & Bracker, 2009). This presents conservation-restoration professionals with new challenges. First, the growing recognition of subjectivity in conservation-restoration practice means the acceptance of the occasional “faulty” decision but generates further research and critical thinking. Self-criticism is a painful process, but it is in the interest of the field as it leads to greater self-awareness and self-confidence. Furthermore, if we think of monuments as human cultural creations “rather that the product of measurement, analysis and chronological order” (Hölling, 2017, p. 4), then it is necessary to broaden the theoretical grounding of our field by introducing methodologies from the humanities and the social sciences. Today a competent conservation-restoration professional must combine successfully technical, scientific and artistic skills, coupled with effective communication and organisational abilities (Muñoz Viñas, 2005, Brooks, 2013). In addition, there is a need to explore the role of conservation-restoration in the sustainable management of cultural heritage. Let us not forget that the mere concept of sustainability is in line with the principles of conservation-restoration, as it embraces respect for the needs of the present and future generations (Brooks, 2013). As for the inclusion of diverse perspectives in conservation-restoration decisions, there is a need for a meaningful and equal dialogue among scientists and society at large. Last, but not least, understanding visitors’ perceptions could be a critical factor in decision-making processes in conservation-restoration practice, and could enhance the view of conservation-restoration as an interpretive and educational tool.

In brief, conservation-restoration theories and ethics which developed during the 20th century to limit the arbitrariness of interventions and give scientific status to the field still prevail in the application of conservation-restoration methods. But, as social needs related to the meaning of heritage in contemporary society change, the need for revising some fundamental conservation-restoration principles becomes evident. So, while still considering conservation ethics as formulated during the 20th century, we should also – and perhaps more importantly – realise the social impact of our choices and contemplate on the needs of the 21st century and beyond.

Acknowledgements

Many thanks are due to the Direction and personnel of the Ephorate of Antiquities of the City of Athens for granting the necessary permissions and facilitating our research, to the Ephorate’s staff who agreed to be interviewed and to all those who took part in the visitors’ pilot study.
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Abstract: Professional ethics and tasks for conservator-restorers, in the preservation of cultural heritage in Europe today: considering the development of scientific conservation-restoration and the improvement of academic education for conservator-restorers in the course of the twentieth century, this paper will analyse the professional position of conservator-restorers and their role in the interdisciplinary cooperation with other professionals dealing with the preservation of cultural heritage. How does cooperation run in the planning stage and in theory and in practice on site? How can we differentiate between the specific professional contributions of conservator-restorers and the activities of other professionals in the field of heritage preservation? How can we improve communication and interdisciplinary cooperation between all professionals involved?

Keywords: Conservation-restoration of built heritage, conservation-restoration profession, interdisciplinary cooperation, Ottoman palaces in Istanbul
19th century. The palaces were given as a dowry to Fehime and Hatice, the daughters of Sultan Murat V, by their uncle Sultan Abdulhamid II. They are of particular importance in the context of Istanbul's urban architecture and represent the typical Ottoman architecture for wooden palaces. (See: Bachmann & Tanman, 2008; Bachmann, 2012)

Following a sensitive conservation-restoration by the high standards set in monument preservation, the palaces will acquire a new function – that of a modern hotel – without hiding their historical origins and use. Spatial structure, layout and the original dimensions have been preserved despite the new function and a large part of the historic surfaces have been conserved.

After a severe fire in 2002, Fehime Palace remained without any protective cover and therefore exposed to the elements for ten years. In order to rescue it from complete ruin, a concept was developed to dismantle it and subsequently restore the salvageable components (approximately 30,000 original elements were deemed salvageable). These include elements from the wooden and stone exterior cladding and its decoration, canvas ceiling paintings with their stucco ornamentation, wooden ceilings, wooden cornices with stucco decoration, wall paintings on plaster and marble floors. From 2012 to 2014, the conservation-restoration work was carried out on the dismantled elements in a 5000 m² depot with specialised workshops specifically planned and designed for this project. Dismantled elements were finally reinstalled on site by 2018. While the salvaged elements were being conserved and restored, the support structure of the palace, which is entirely new, was constructed using original techniques (wood and bricks), keeping in mind the dimensions of the original elements along with strict earthquake standards.

The second palace, Hatice Palace, was extensively altered and unscrupulously renovated several times over the years. Most of the original wall surfaces were lost, and much of the original support structure was changed, which compromised the static conditions of many of the walls. On the other hand, the elaborately painted canvas ceilings with stucco decorations, the ceiling cornices and the wooden ceilings have been preserved almost entirely. Only a small part of the conservation-restoration for this palace was executed in the workshop; the rest is done in situ.

In 2010 RAO\(^1\), under the author’s direction, took over the conceptual planning as well as the project management and supervision for the reconstruction, conservation and restoration of both palaces. The restoration concept was developed in collaboration with David Chipperfield Architects Berlin and implemented step by step on behalf of the client Turkish Do & CO together with the local project architectural team Arol Sevimlisoy, Sevimli Mimarlik Istanbul. Besides developing concepts for conservation-restoration and reconstruction, project

\(^1\) Jörg Breitenfeldt was a co-founder, and until 2018 partner and managing director of the company Restaurierung am Oberbaum GmbH (RAO) Berlin, which was founded in 2001. Since mid-2018 he has continued his business and the project independently under his name, Jörg Breitenfeldt – Büro für Restaurierung (Office for Conservation-Restoration), with an experienced team of experts, which includes conservator-restorers, architects, engineers, archaeologists and art historians.
management, project coordination and quality control, also practical assistance in the training of the conservator-restorers, artisans and craftsmen for preparing reference areas was given to evaluate the aesthetic goals from a historic monuments point of view while taking into consideration the new function of the buildings as a hotel.

Analysis of the professional position of conservator-restorers and their role in interdisciplinary cooperation within the field of cultural heritage preservation today

If the example of the Istanbul project were to represent an ideal scenario, the question must be asked: What is the reality in conservation-restoration practice in general? What skills and expertise were conservator-restorers able to acquire and which ones will they be able to acquire in the future?

Using the current project in Istanbul as a starting point for the analysis of "The professional position of conservator-restorers and their role in interdisciplinary cooperation within the field of cultural heritage preservation". A focus will be placed on the question of which influence conservator-restorers have on decision-making processes in practice and at which point they can intervene and become effective. When answering this question, we first try to clarify how the cooperation in theory and practice works. Furthermore, what is the self-perception of conservator-restorers concerning their competencies and role?

Starting with the academic education of conservator-restorers and taking a closer look at various occupational protection efforts and initiatives, it quickly becomes clear that conservator-restorers are in a particular dilemma concerning the positioning and classification of the professional group and that they encounter regulatory limits. On the one hand, conservator-restorers aim to identify and define themselves as highly qualified specialists. On the other hand, efforts are being made via occupational protection initiatives to draw a distinction and at the same time to find a balance between the specific academical profession and crafts as well as artistic activities. However, it is evident that these areas are not suitable for depicting the particularities of planning and coordinating activities on the construction site. Here, a comparison with architects, civil engineers or other professional planners would be more appropriate. This, in turn, shows that the responsibilities of conservator-restorers cannot be defined and named as precisely as those of a specialist planner, engineer, art historian or natural scientist.

Education

Concerning the question of academic education and taking the example of German universities and academies to simplify matters, even though it can be assumed that the natural science standard is very high, a discrepancy between the training of highly qualified "specialists" with scientific standards and the practical requirements in the planning area quickly becomes apparent. This involves extensive and all-encompassing challenges. The challenges range from concept evaluation, building investigations to understand the chronology and materials used, damage and deterioration analysis, documentation of findings, mapping, integration
and coordination of specialist planners from other disciplines, conservation-restoration concepts, evaluation of the aesthetic concept, interaction with the authorities responsible for the conservation of historical monuments and the preparation of cost estimates to quantity calculations. It also includes project management, construction supervision, quality control, the training and further education of artisans and restorers, the creation of sample surfaces, the execution of highly specialised individual tasks in conservation-restoration, the fine adjustment of the concept, which includes work planning and workshop organisation. As one might assume, not everything will nor can be covered in a 5 to 6-year university-level training. On the other hand, this is also true for the training of architects with complementary focal points to that of conservator-restorers.

Conservator-restorers certainly have more to offer in the field of monument preservation. The architect, as a natural and most important partner alongside the building owners, is first and foremost a design architect and rarely focuses on the area of cultural heritage or monument conservation. Here, the academic conservator-restorer can play a bridging role, from the theoretical requirements of the design idea to the concept. However, if conservator-restorers are not involved as authorised instances in the design idea and concept development, they quickly fall into the role of mediator at the level below project management or project control and, therefore, below the threshold of a direct influence on decisions of the building owners. Therefore, the question is not: How can one differentiate between the specific professional contributions of conservator-restorers and the activities of other professionals? The right question is: What contributions can the academic conservator-restorer make? Alternatively: How can academic conservator-restorers improve communication and interdisciplinary cooperation between all professionals involved and which role can they play? Here, it is useful to consider the role of conservator-restorers and try to define it.

In planning and management processes, it is crucial to expand the range of services and diversify experience. This concerns the planning role conservator-restorers play in the pyramid of decision making. Due to systemic circumstances, decision-making on the part of a building owner takes place more in the overall context of the building project. The architect fulfils this role in both classical and practical terms. His focal points are complementary to those of the conservator-restorer and therefore symbiotic. A separate organisational approach as conservation planners can be used, which is generally a matter for well-managed architectural offices. It is referring to the coordination of specialist planners under the umbrella of conservation-restoration planning offices as the principal planner. In this way, the dilemma could be solved.

In heritage conservation practice, more or less ad hoc constellations are usually created. The architects responsible for the project or the building owners are often responsible for determining which specialist planners are involved and will coordinate this. However, this can mean that unspecified specialist planners are determined too early on or that they have little or no experience in the field of monument conservation and are even reluctant to accept the demands of preservation and conservation. It is therefore essential to maintain general coordination and direct representation with the client. In order to achieve this, the
young profession of academic conservator-restorers needs partners. This natural partner is the architect; in the field of archaeology, the archaeologist. In the best case, it is a highly experienced architectural firm. Conservator-restorers cannot assume the function of a good architect; however, they can come to a kind of symbiosis with the architect and operate together, which is beneficial for all sides.

Furthermore, the question must be asked: what skills can academic conservator-restorers acquire? The thesis is as follows: the ideal scenario for the interdisciplinary position and role of conservator-restorers (in theory and practice on the construction site) lies not in a narrow definition of their role, but in methodical symbiosis and transdisciplinary cooperation. Nevertheless, this is only conceivable if conservator-restorers also recognise the diversity of processes and participate in it. However, it is important to point out a specific and perhaps also self-limiting predisposition among academic restorers, in addition to the given regulatory limits.

It is always striking that recent graduates of academic institutions are very uncertain due to the sometimes too schematically applied scientific methodology and have not learned to acquire haptic and empirical knowledge and to rely on their "eyes" when making minor decisions. Responsibility is sometimes impermissibly quickly transferred to the natural scientists or other sciences. Often compulsive complications of processes take place, rather than coordination of processes and procedures and a co-determination of the conditions. Finding a balance here seems to be particularly important. If conservator-restorers do not establish this balance, other disciplines will take over. But, due to the diversity and depth of the extensive scientific scope in restoration-conservation and its practical application context, other disciplines will rarely be similarly qualified as conservator-restorers in practice and the field.

If, on the other hand, conservator-restorers take the coordination and the management more into their own hands, they also present themselves as a competent and authorised partner and will be able to better influence the conditions for the implementation of monument preservation matters.

Finally, we come back to the starting point. Other academic disciplines still seem to dominate the scene and the science of restoration-conservation, now even at some universities. Why is that so? It starts with the training. Is there a single university or academy that includes serious conservation-restoration project management or construction supervision in the regular curriculum? It can rarely be found. That is a huge shortcoming in the system especially when there is an interest in making conservation-restoration science and the profession self-sufficient. After all these years, it is time to readjust the professional role of academic conservator-restorers in the field of preservation of historical monuments. One can only attain the roles which one strives to acquire!
Fig. 1 Left building Fehime Sultan Yalısı (Fehime Palace) and right building Hatice Sultan Yalısı (Hatice Palace). Photo around 1900. Reprint from: Eldem, Sedad Hakkı; Bragner, Robert; Yıldızhan, Mehmetşah (1993-1994): Boğaziçi yalıları. The Yalıs of the Bosphorus. İstanbul: Vehbi Koç Vakfı.

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Abstract: As conservator-restorers we should be "a voice of reason", an advocate that speaks for the cultural heritage values of our built heritage. However, we are often only one voice in a large group consisting of everything from structural engineers, geologists and carpenters to economic advisors and bureaucrats. Being a conservator-restorer in such settings often turns out to be a great balancing act. On the one hand, we are supposed to protect the buildings against any intervention that will compromise its authenticity and cultural values. On the other hand, we must allow as much protective work as possible to ensure the buildings’ future. Questions that can arise for a conservator-restorer during and after discussions in multi-disciplinary groups are many. Questions that needs answering before work starts. Are the conservator-restorer and the master craftsperson really on each end of the scale in a project, or is it just that we use different words? Is it conservation ethics versus the practical view of the engineer, or can both sides be pragmatic and find a new and possibly better solution? Is it possible that the conservator-restorer and the funding body can meet in the middle, or can that jeopardize the project?

Keywords: Building restoration, multi-disciplinary work, conservation-restoration, conservation-restoration ethics, cooperation

Conservator-restorer or architect? Craftsman or engineer?

In comparison with the conservation of objects in museums the conservation-restoration of buildings have traditionally not been thought of as an area where one would naturally find a conservator-restorer, not in the project group and definitely not as the project leader. This has changed in recent years although for many it is still an initial thought that an architect should lead the conservation-restoration of a building.

Building conservation involves many people: Architects have to act as team directors, as the actual conservation process requires the work of many professionals.

(Muñoz Viñas, 2005, p. 73)
There is also amongst some professionals an unspoken hierarchy where the university trained put themselves above the craftsmen. This is also true within conservation-restoration; many resent any element of their professional education being compared to an apprenticeship or their expertise being described as craftsmanship. (Ashley-Smith, 2016, p. 122)

To lead a successful conservation-restoration project with as few "bumps in the road" as possible the thought of superiority or preconceived ideas that one profession is better to lead a project should be put aside. A successful project is one that is based on dialog, an understanding of the other professions' ethical principles, a respect for each of the different disciplines and inclusion in the planning from the start. Moreover, why not a conservator-restorer in lead of a building restoration project?

One of many voices

Conserving and restoring buildings are in many areas different from the conservation-restoration of objects, but apart from the sheer size of the object, the scope of the project is the same. Simplified it starts with research and planning, continues with the decision-making and actual work, and ends with a completed project and a report.

In most building conservation-restoration, there will be multiple disciplines involved. In one project, there can be everything from a conservator-restorer to a demolition expert involved. Projects can include structural engineers, architects, carpenters, bricklayers, electricians and conservator-restorers.

Questions that can arise for a conservator-restorer during and after discussions in multi-disciplinary groups are many. Questions that needs answering before work starts. Are the conservator-restorer and the craftspeople really on each end of the scale in a project, or is it just that we use different words? Is it conservation ethics versus the practical views of the engineer, or can both sides be pragmatic and try to together find a new and possibly better solution to a problem? Is it possible that the conservator-restorer and the funding body can meet in the middle, or can this jeopardize a project?

Working in the field of building conservation-restoration one constantly balances between technical principles and conservation principles, and since most of the buildings are in use and/or being lived in it is necessary to be a pragmatic conservator-restorer.

When the projects are far away from the office, the conservator-restorer cannot always be a constant presence. In many multi-disciplinary projects there is usually only one conservator-restorer involved, and problems will often have to be solved on the spot, whether the building is old or new, small or large, made of wood or brick. Decisions must then be a combined effort from all disciplines involved where each discipline will have to respect the principles others are working out of.

This is a reality that very few conservation-restoration schools and courses prepare their students for, working out in the field where decisions must be made on the spot, in cooperation with disciplines that are very different from your own and there is no time for a decision- or work analysis-flow chart.
Three building restoration projects

Conservation-restoration is governed by the principles of minimal intervention, the use of appropriate materials and – as far as possible – reversible methods, and a full documentation of all work undertaken. These principles are fully adaptable to building conservation-restoration and working with other professions in multi-disciplinary groups. The key element is dialog and making sure everyone are on common ground when it comes to vocabulary and understanding of the project.

In the three cases of building conservation-restoration projects mentioned here, the cooperation between different disciplines went fairly easily. The differences in principles are not that prominent, the basis is very similar, what can be different is profession-specific principles. There are certain principles that are more prominent for conservator-restorers than for other, one is i.e. the ethics of treating objects from other cultures, and another is documentation.

Conservator-restorers are trained to document every stage of any conservation planning and work they undertake. The transferal of this professional habit to other disciplines within a building conservation-restoration project is important and something conservator-restorers need to work towards. A way of ensuring that documentation is a part of a project is to include the following article from the Venice Charter into the project plan:

Fig. 1 Conservator-restorer or architect? The restoration of buildings requires many people, and just as the conservation-restoration of smaller objects in a museum, it requires planning and preparation. Photo: Tanja Røskar
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.

(The Venice Charter, 1964, article 16)

Case 1: Stangnes, buildings at the end of a footpath on the edge the sea

Fig. 2 Sometimes decisions regarding the restoration have to be taken based on photographic evidence and oral reports from people on-site. This requires a common vocabulary and understanding of principles. Photo: Tanja Røskar

The buildings at Stangnes are situated on the edge of a peninsula with only a very narrow and winding footpath leading up to the buildings. To complicate matters more there are laws protecting both the cultural and natural heritage of the site as it sits in a national park. The conservation-restoration project has involved the local council, a government directorate, a building restoration firm, a window restorer, painters, a restorer of antique ovens and a conservator-restorer.

In preparation for the conservation-restoration of the buildings, consultants wrote an extensive condition report with treatment plan and costs. This report is the work order for
the restoration firm. The work has been prolonged extensively though due to unexpected problems that have surfaced.

In unexpected situations, like when removing panelling exposed much more rot than expected, it is important that the conservator-restorer (who was not on-site) and craftspeople share a common work vocabulary and have agreed upon the principles before work started. As mentioned in this project there was a very extensive work plan that was also thoroughly gone through word by word by all involved parties. This was done to make sure that everyone had the same understanding of the plan and the conservation-restoration principles the craftspeople had to work by since the conservator has only been present on project meetings or when asked to come to discuss and assess a new problem/area.

Case 2: Barthebrygga 14, restoring the only remaining 17th century room left in a building

The scope of this conservation-restoration was to preserve the old storeroom on the ground floor of an old pack house, now residential home. To save the building and foundations, and the storeroom, it was necessary to remove the ground floor floorboards and dig out soil and sand and lay down gravel to better the drainage and ground conditions. In this project a master craftsman and several craftspeople, a conservator-restorer and an engineer (the owner) was involved.

As with Stangnes this project also benefitted from an extensive plan for the work, in this case made by the engineer. Also, as with Stangnes, the project manager, in this case the engineer, could not be on-site for most of the project, but the conservator-restorer was on hand for discussions.

The close dialog between the craftsman, engineer and conservator-restorer ensured that the work followed closely principles of conservation set out by i.e. English Heritage.

• The historic environment is a shared resource
• Everyone should be able to participate in sustaining the historic environment
• Understanding the significance of places is vital
• Significant places should be managed to sustain their values
• Decisions about change must be reasonable, transparent and consistent
• Documenting and learning from decisions is essential

(English Heritage, 2008)
Fig. 3 Most conservators are more used to the scalpel or the cotton swab, but when working with buildings a mini-digger is not an uncommon tool to be seen during a project. Here the ground underneath a 17th century floor had to be dug out and replaced to improve drainage and prevent raising damp that was threatening the building. Photo: Jonny Jensen AS.

Fig. 4 The finished restored room seen in the last picture with the mini-digger. Photo: Tanja Røskar

The conservation-restoration of the storeroom at Barthebrygga 14 proved successful from a conservator-restorer's point of view as the interest for doing the work according to conservation-restoration principles increased as the project went along. The close cooperation between master craftsman, conservator-restorer and engineer also resulted in technical solutions that are adapted to the needs of the building.

Case 3: Enghavehuset, a building restoration project in an open-air museum

The conservation-restoration of Enghavehuset at the Aust-Agder Museum and Archive was a large project that included two project leaders, one consultant dealing with the economy and contracts and a conservator-restorer that was leading the planning and practical conservation-restoration work.

This was a large project with a multi-disciplinary working group consisting of eight different professions. There were amongst others carpenters, bricklayers, landscape architects, engineers and demolition experts.
The restoration of Enghavehuset required a project group consisting of eight different professions, with everything from conservator to demolition expert. All in all, this little house had apx. 15 people working on different aspects of the restoration during the project. Photo: Tanja Røskar

On any given day there could be 4-5 different types of craftspeople present on-site. This resulted in a parking problem that was larger than any cooperation problems. Photo: Tanja Røskar

The project was put out to tender and to make sure that potential tenderers understood the principles of building conservation-restoration in a museum setting a presentation was made which included the history of the building before and after it ended up in the open-air museum. This way it was hoped that they understood the heritage values of the building as well as the technical aspects. In the presentation, we also pointed out what parts that were not to be touched. Some of these parts were self-evident, but others was maybe a bit more difficult to understand for non-experts, such as preserving the small holes in one of the walls from air gun pellets shot by a protesting neighbour.

This project was the first large building conservation-restoration in which I had the project leadership. Working with so many different professions, I found a recipe for leading multi-disciplinary projects that I have been following since (Røskar, 2010):

- Gather information - drawings, photos, archive material etc. before making a project description/plan.
- Make a presentation to prospective craftsmen/companies if the job is to be put out to tender.
- Have very specific work orders and be prepared to explain your decisions.
- Explain your conservation-restoration principles, but also respect their professional principles.
- Stand firm, but be pragmatic.
- Follow up, be present on the site or come by when it is required.
- Remember that no profession is above another, we are all just as important in getting the job done.
- Do what conservator-restorers do better than most – document!
Everything is a story

Throughout discussions with different stakeholders on small or large building conservation-restoration projects, I have always found that early dialog and inclusion of everyone involved from the start has been alpha and omega for a successful project. It is also important that everyone involved understands where the other part is coming from, professionally. And although we conservator-restorers might like to think so, it is not always crystal clear to others why we want to preserve certain structures or objects. During a project last year I had to argue extensively with both owners and craftsmen that a table from the 1960-70s with 50 or so years of teenage carvings such as "I love Dr. Dre" was just as important as the dates carved on the original 1880s beams inside the walls. In the end, I won them over with my simple conclusion borrowed from a painted street art wall: Everything is a story.

Fig. 7 Remember – "Everything is a story" – there is a story behind every change in material, every damage and every addition made. (Artwork by E.B. Itso). Photo: Tanja Røskar
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• Issues of Preservation of Modern and Contemporary Art

Case Study – Restoration of a Contemporary Painting: a Hole Issue
Aude Richard

The conservation of Authenticity of contemporary art
Carlota Santabárbara Morera
Abstract: Some 90 Roman stucco fragments, coming from the Archaeological Park of Herculaneum, underwent in the conservation-restoration process within the Istituto Superiore per la Conservazione ed il Restauro (ISCR) laboratories in Matera. Before the conservation activity, the wide number of this manufacts brought us to design a data management system, suitable for stucco findings. Nowadays, the international approaches towards data management of this kind of artifacts is extremely heterogeneous and the absence of an unequivocal data sheet makes the cataloguing very complex and laborious. Our studies on the fragments allowed us to draw up a specific cataloguing instrument for this kind of material, carried out with a software structuring data collection in order to respond to different necessities, such as completeness and updatability, required by an efficient data management system.

Keywords: Stucco artifacts, data management system, data sheet, documentation, lexicon

As part of the 2017-2018 laboratory activities of Istituto Superiore per la Conservazione ed il Restauro (ISCR) in Matera, Roman stucco artifacts were recorded before the conservation activities. The 90 stucco fragments come from the Archaeological Park of Ercolano. They were part of the decoration of the Tetrarpylon which formed the entrance of a public building, dedicated to the imperial cult, and defined as Augusteum or Porticus. The complex was erected on the Decumanus Maximus around the mid first century A.D.; it was already identified by archaeological excavations of the eighteenth century, as shown by drawings of the period. The four-sided arch was recovered from the volcanic mud during the excavations of 1960s. Some stucco reliefs are still present in situ, in the lateral arches and in the barrel vault. The patterns belong to the IV style, with simple panels surrounded by complex and rich frames.
The random fragments which arrived in the laboratory were taken from a showcase kept in the Domus XVI of insula VI. This exposition was part of a broader project developed by archaeologist Amedeo Maiuri, who aimed to create a large open-air museum (Camardo e Notomista, 2017).

The fragments coming from this showcase were labeled for transport in the ISCR laboratories with a number from 1 to 3; each number corresponds to the shelves of the showcase itself. It was therefore necessary to make a photographic documentation of each piece and establish a nominative criterion more appropriate to the uniqueness of the fragments. They were then placed on the tables, studied by visual observation and physically grouped according to the type and size of the decorative motifs.

The fragments have been organized into seven groups, and thanks to the photographic documentation of the in situ stucco decoration, it has been hypothesized that only part of these are really relevant to the barrel vault and the smaller arches. In fact, there are few fragments included in a different group: they have a painted layer (Egyptian blue, Brown Iron Oxide, Green), which finds no comparisons within the Tetrapylon, so they may belong to another monument.

The large number of un-cataloged fragments, has required the development of a data management system, suitable for stucco findings. The lack of this kind of instrument brought us to propose an unequivocal tool that could be largely used in the field of conservation. Conventional and international instruments available to the conservators became increasingly
necessary within the restoration practices of the 21st century. The large amount of digital information available today, together with its dissemination, has resulted in a great push in the search for methodologies and standards for the use of metadata within electronic resources.

Since, the international context about data management of this kind of material is extremely heterogeneous and a shared model of a standardized recording sheet for stuccos and a standard lexicon for morphology of degradation was not elaborated, the classification system presented here was based on those developed in the occasion of other ISCR projects on data management, such as that used in the Dora Pamphilj Gallery in Rome (Marcone et al, 2001) and in the Ajanta Caves (Bon Valsassina et al, 2013). The absence of an unequivocal data management system made anyway the cataloging very complex.

Data collection is based on UNI-NORMAL guide lines. This system works through keywords research, following a rational organization that allows an easy retrieval of information. Recording data have been elaborated with File Maker Pro, a tested software used for Cultural Heritage. This program has been chosen because of its flexibility and compatibility to all operative systems. Moreover, it allows to structure data collection in order to respond to different necessities, such as completeness and updatability, required by an efficient conservation data sheet, and the outputs are very easily storable files.

Fig.2 Data sheet elaboration (Photo Credit: ISCR-Matera students)
The basis of the cataloging system is the use of metadata, which is information that describes other data. The metadata facilitate the following operations:
- Research, to identify the existence of a primary document;
- Localization, to trace a particular version of the primary document;
- Selection, to choose primary documents without having to access their content;
- The management of information resources, i.e. being able to manage collections of primary documents thanks to cataloging tools.

The creation of a metadata archive is a complex operation and requires particular attention to the aspects concerning the control of terms to be used and compatibility with existing standards.

For this reason, the data management system is organized in six sections, inspired by the cataloguing system developed for Ajanta wall paintings:
- IDENTIFICATION: it contains data about the exact geographic location of an artifact (Country, Province, Region, Locality, Specific Area, Collocation), but also information dealing with its geometry (Height, Thickness, Width, Perimeter, Surface) and its general description (Century, Year, Artist, School, Technique, Restoration);
- DOCUMENTATION: in this section it is possible to register bibliographic and archival information (Bibliography, Archival documentation), Graphic documentation and Photographic documentation;
- LOCATION/EXPOSURE: it gives references to Collocation, Protective and Security system and Exposures or Environmental risks that could cause deterioration;
- TECHNICAL DATA AND CONSERVATION CONDITION: this section provides data about the different layers of the artifacts (Support structure, Preparatory layers, Paint layers, Finishing layers) and analyzes for each of them its Constituent materials/Technique and types of deterioration that could occur (for Support structure Deformation, Disconnection, Fissures, Lacunae, Whitening, Biological Alteration, Moist area, Efflorescence, Combustion traces, Recognizable previous restoration, Other);
- RECOMMENDATIONS FOR INTERVENTIONS: this section is divided in Urgent temporary measures, Short-terms interventions, Mid-term interventions, Long-term interventions and Maintenance and monitoring. For the first and the last term it’s possible to fill out the empty fields. The other terms contain several available options (Facing, Restoration of paint film cohesion, Restoration of paint film adhesion, Restoration of preparatory layers’ cohesion, Restoration of preparatory layers’ adhesion, Biocide treatment, Removal of not functional elements, Superficial Layers cleaning, Unfit plasters removal, Salts extraction, Infilling, Pictorial Reintegration, Superficial protection, Analysis, Other).
Each section is divided into fields with different levels of detail, defined by obligatory underfields. To fill out data recording, the user selects permitted lexicons, included in a drop-down menu. This mode is used to avoid typing mistakes and to unify the technique lexicon.

To achieve this goal, we generally modified the data linked to wall paintings with those referring to stuccos (like Stucco, Polychrome stucco, Golden Stucco instead of Fresco, Fresco with secco finishes, Lime, Tempera, Oil, Other in the option Technique in the IDENTIFICATION section). However most of the work consisted in the introduction of new terms referring specifically to stucco artifacts. For instance, we added the voices Wood and Metal to Constituent Materials of Support Structure, in the section TECHNICAL DATA AND CONSERVATION CONDITION. We also included the voice Anchor elements (Type: Metal, Wood, Rods, Other). In fact, for three-dimensional stuccos or stuccos with strong projections, rigid structures were usually used, accurately waterproofed with oils, waxes, resins and mastics. Moreover, we added the voice Shape layer, which does not exist in the frescoes layers. Like the other layers, it is developed as explained above (data about its Constituent materials/ Technique and types of deterioration that could occur). To give an example, we specified the employed materials for this specific layer: Mortar, Tuff, Bricks, Vegetable fibres, Animal fibres, Reeds, Wire, etc.). Besides in Preparatory layers we included the voice Preparatory drawing with all its specifications.
Another field was included to our stucco data management system: Finishing layers. Its Constituent materials contains, amongst the others, the voice Sparry calcite. It is a coarse-grained calcite crystal that was usually used by ancient Romans to make their stuccos or plasters more similar to marbles, thanks to the particular light reflection effects given by its rhomboidal crystals. Finishing layers Drafting signs/Tooling technique include the important distinction related to the different types of relief decorations. They can be shaped and directly modelled on the plaster (Relief decorations) while it is still fresh and moldable or they can be obtained thanks to stamps and matrices applied on stucco (Mold decorations) or pre-shaped in a matrix and then applied on the preparatory layers (Applied decorations). The matrices used by Romans were made of wood and pottery. To facilitate the detachment of the stucco from the matrix, they used to sprinkle matrix interface with stone or marble dust. The signs of the application of these molds are recognizable by the presence of ridges, formed when the molds were lifted from the mortar. To hide defects or to better adhere the applied decorations, the stuccos were often reworked with spatulas or other tools. If compiler notes these signs he can choose the option Signs of tools used for drafting and tooling.

In the last layer, called Painting layers, the recorded data are similar to fresco ones and we made only few changes and addition: we used the term Colored mixture to refer to the practice of mixing the pigment with the mortar to create a colored stucco.

Lastly, for all the layers the voice Anthropic damage/signs was added.
This cataloguing system makes possible to gather the recording sheet in a database that allows a faster management of metadata and an easier access to information. It represents indeed a useful instrument that can be employed by conservators and the wider academic context.

Simultaneous management and archiving of sheets of different manufactures make it possible to conduct comparative research. Thanks to which, it is possible, for example, to deduce the intended use of a given material, in a given period, for a specific category of artifacts. This program is therefore also a valid historical-critical analysis tool, as it gives a broader and cataloged view of different details in a single interface.

During the creation of the data management system, it was necessary to re-evaluate the lexicon used in the documentation of man-made stone materials, from the techniques of execution to the state of conservation.

The aim of this work is to create a univocal model for the description of man-made stone artifacts, in order to create a common language. Moreover, it would be opportune in the future to create a web address where you can consult the sheets of already cataloged artifacts, and at the same time, be able to use the data management system for the documentation of all works.
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Sitography

http://www.treccani.it/enciclopedia/stucco_%28Enciclopedia-dell%27Arte-Antica%29/
Abstract: This article discusses the role that new digital technologies play on conservation-restoration of fragmentary artefacts. Above all, the use of these tools is essential in case the artefacts have lost the formal unity and reach us without documentation concerning their original position, as in the case of the Roman frescoes from Sybaris, object of this study. The creation of virtual models proves as fundamental for the material and formal recomposition of the artefacts, especially in the creation of a new support and display choices. This last aspect required an analysis on the effects that virtual reconstructions and augmented reality have on visitors.

Keywords: 3D, Augmented Reality, perception, Virtual restoration, Roman frescos

Introduction

Some Roman age fresco fragments, detached from a domus within the ancient city of Sybaris - Thurii - Copia, nowadays part of the Archaeological Museum and Site of the Sybaritis (Italy). They underwent in-depth study and conservation works during the didactic activities held at ISCR Laboratories in Matera, in the academic year 2016-2017. The finds were unearthed in 1962 in an excavation area called Parco del Cavallo. Due to a flood which affected the site in October of 1971 it was necessary to detach the frescos in order to preserve them. The procedure was carried out by a team of ISCR (at that time ICR) experts\(^1\). The fresco fragments were gathered in five panels and sent to the labs in Matera.

However, the documentation on their original position was incomplete. Moreover, due to their fragmentary nature it was difficult to get either a formal or a stylistic knowledge.

\(^1\) The archaeologist Licia Vlad Borrelli, the conservator Giuseppe Moro and the chemist Marisa Tabasso led the operation; the urgency to act is evident in the correspondence between the “Soprintendenza delle Antichità della Calabria” and ICR. The documents are nowadays kept in the ISCR archives.
Fig. 1 Photo taken during the 1962 excavation campaign. (Photo credit: ISCR archives)
The conservation-restoration work, the completion of the cleaning in particular, brought to light new details that made it possible to put forward hypotheses about the decoration.
Fig. 4 Matera, ISCR laboratories, Working on the frescoes fragments. (Photo Credit: Sokol Muca, ISCR-Matera student)

The analysis of the execution techniques, of the constitutive materials and of the state of conservation of the fragments, together with the iconographic and documentary study led to the creation of a virtual model which aims at investigating and integrating the conservation-restoration work along with educational and didactic purposes. The realization of the 3D model of the frescoed environment was dictated not only by divulgation aim but above all knowledge. Virtual conservation-restoration has not only been seen as an ideal reconstruction modality of the artefact but also as a methodology for the checking and synthesis of analytical data. The virtual model represented the last link in a chain of studies that are intended as a point of convergence and method for the data verification. The 3D reconstruction has helped the knowledge of the artefact obtaining significant increases in the quality of information. The lack of integrity caused difficult iconographic problems: the information collected through the in-depth observation, the direct contact with the objects and the thorough knowledge of the artefacts have been important tools to speculate about the correct reconstruction.

Decorative model

The frescoes come from a residential room with decorations on the four walls, depicting geometric figures and vegetal ornaments typical of Roman wall paintings.
The room has two long walls and two shorter ones. The decoration on a white background was organized on three horizontal bands. A frame of red *morellone* delimited the edges of the wall and in the lower level there were squares divided by yellow-*morellone* stripes within which vegetal motifs were painted. The intermediate register, on the shorter wall, is decorated with the succession of two panels with vegetable branches, inside which are smaller panels made of a double line in *morellone* and yellow. The panels are separated by a vertical element, similar to a simplified aedicula made of three colour bands: *morellone*, yellow and green. Where the short walls of the room were probably composed of two panels and one aedicula, the longer wall should be formed by the sequence of three panels and two aedicula. Architectural motifs must have been painted on the upper level, as it was common at the time. However, since only the lower part of the wall was preserved, the reconstruction of the decoration on the upper band is the result of stylistic comparisons with other surviving works especially with the ones from Herculaneum and Pompei.

After the photogrammetric survey, the reconstruction of the 2-D composition module was

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2 "Intense Red, Red ochre + coal black, used in Roman frescoes as ground layer for blue sky iron, oxide, hematite type, Red, " this is the synthetic equivalent of the naturally occurring mineral, hematite Fe2O3, which produces a bright red pigment. Being a stable compound, it may be produced by many methods. These are described in Cornell and Schwertmann (1996) and may be summarised as follows": Eastaugh et al. 2004, p. 201.
processed using appropriate software and to re-stitching the missing parts.

Fig. 6 Virtual Restoration of the west Wall. 1, 2, 3, three horizontal bands. (4) a frame of red-morellone delimited the edges of the wall. (1-a) Yellow-morellone stripes and vegetal motifs. (2- a, b) two panels with vegetable branches, inside which are smaller panels made of a double line in morellone and yellow (2-d, e). (2-c) a vertical element, similar to a simplified edicula made of three colour bands: morellone, yellow and green. (Author of the sketch, Sokol Muca, ISCR-Matera student)

Fig. 7 3D reconstruction hypothesis of the Domus of Copia environment, Archaeological Park of Sybaris, area 70. (Author of the sketch, Sokol Muca, ISCR-Matera student)
Once the parietal module was obtained after synthesizing all the information, the 3-D virtual model of the environment was carried out. This allowed us to make some checks on the metric relationships and to put aside other hypotheses. The application of the texture on the 3-D model allowed us to visualize the ambience as it must have been: a sumptuous room decorated with frescoes and a mosaic floor.

**Virtual Conservation-restoration, limits and benefits**

The virtual reconstruction allows to see the artefact as it was meant to be, recovering the lost formal values. It was then possible to develop a virtual model that would optimize the readability of the artefacts, collecting data during the conservation-restoration work and integrating them with archive data. During the process of virtual reconstruction, it was necessary to adopt the same principles Cesare Brandi suggested for the actual conservation-restoration in order to avoid interpretative mistakes, although working on digital information had the advantage of modifying, duplicating and deleting data without any consequences or damage to the artefact. (Brandi [1963] 1977 and 2005) Like the integration on real artefacts, also virtual integration has to comply with the concept of *authenticity* too, differentiating the integrated parts from the original ones. The technological means offer the opportunity to perform virtual conservation-restoration, which allows the analysis and the comparative assessment of the different hypotheses before carrying out any action directly affecting the artefacts. Moreover, we can choose the most efficient option of reconstruction of the lost or modified parts. In this regard, the reconstruction purpose must check complex information, test hypotheses, analyse and interpret specific aspects, display formal data that would not be easily examined in the real context as well as define and increase the aims of the conservation work.

**Conclusions**

This study was aimed at understanding the role that virtual reconstruction plays in the field of cultural heritage, based on a critical interpretation of the contents, whose primary objective is to set up a debate, among all the people who deal with cultural heritage on the need to apply digital technologies and visualization methods with scientific and intellectual rigour. Although today we are witnessing renewed technological enthusiasm for the issues related to conservation-restoration and the consequent inclination to welcome the available scientific tools as miraculous and unquestionable, the use of technological facilities requires greater carefulness, and above all thorough knowledge integration. We must share the difficulty in finding consistency in the field of conservation-restoration. The wide range of experiences

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3 "Accordingly, the second principle of restoration can be stated: Restoration should aim to re-establish the potential oneness of the work of art, as long as this is possible without committing artistic or historical forgery, and without erasing every of the passage through time of the work of art." Brandi [1963] 1977, quoted from the English translation 2005, p. 50.
and the consequent difficulty in reaching the right solution in this field, has allowed us to make a reflection on the need to suggest specific guidelines on virtual reconstructions for cultural heritage. The use of these tools is not to be excluded immediately, because the opportunity of carrying out reconstructions, as far as it is legitimate, is supported by a further remark: any intervention is still an action taken in the present with which, intervening on the lost text, we fix a new ratio of values between the existing elements and the missing ones and, in a broader sense, between the artefact and its history. Moreover, virtual reconstructions can be auxiliary means to help the public deepen their knowledge of cultural heritage and set out approaches based on multi-sensorial perceptions and on the active involvement in the exploration of contents, with the aim of raising the curiosity, the interest and affection of the public for cultural heritage, so as to spontaneously trigger actions of care, preservation, knowledge and enhancement.

The rules on the use and application of technologies for virtual reconstruction have already been defined and organized with rigorous methodological principles. The London Charter (2009) and the Seville Charter (2011) have already dealt with the aspects above mentioned. Since the methodological procedure has been systematically defined, we will focus on the impact they have on the public. It is now clear that the systematic use of 3-D reconstructions, Virtual Conservation-restoration and Augmented Reality are deeply modifying our perception of reality in the fruition of cultural heritage. The display panels with textual explanations certainly provide the information necessary to understand the history, the formal, material, technological and social aspects as well as the various transformations in time. This contributes to situate images in a specific cultural context. But our attention is being increasingly attracted by amazing reconstructions that may have the drawback of pushing the artefacts in the background. The studies conducted on visual perception by Rudolf Arnheim (Arnheim 1954) and Ernest Gombrich (Gombrich 1982) exhaustively

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4 “While computer-based visualisation methods are now employed in a wide range of contexts to assist in the research, communication and preservation of cultural heritage, a set of principles is needed that will ensure that digital heritage visualisation is, and is seen to be, at least as intellectually and technically rigorous as longer established cultural heritage research and communication methods. At the same time, such principles must reflect the distinctive properties of computer-based visualisation technologies and methods”. London Charter, 2009, p. 2.

5 “Today, the worldwide application of computer-based visualisation in the field of archaeological heritage may be described as full of "lights and shadows". The spectacular growth of cultural tourism and the amazing technological advances in recent years have led to the development and implementation of a myriad of projects to investigate, preserve, interpret and present various elements of archaeological heritage using computer-based visualisation. These projects have demonstrated not only the extraordinary potential of computer-based visualisation but also its many weaknesses and inconsistencies. Therefore, there is a clear need for a theoretical debate with practical implications to enable heritage managers use the best that new technology can offer them in this area while minimizing its most controversial applications. In short, some basic principles must be established to govern practices in this growing field”. Seville Charter, 2011, p. 2.

6 “... with whose work I had become acquainted through Henry Schaefe - Simmern, asserted that the mind in its struggle for an orderly conception of reality proceeds in a lawful and logical way from the perceptually simplest patterns to patterns of increasing complexity." Arnheim 1954, p. 6.
described our inclination to prefer a complete image because our brain perceives them as ‘order’, unlike fragmentary images which are perceived as ‘disorder’. The complete images reconstructed, on the one hand, it reduces the chance of interpretative misunderstandings that may arise with extremely fragmentary artefacts, but on the other hand it reduces the level of study in depth. Every reconstructive hypothesis therefore implies the redefinition of the artefact. Every reconstruction brings us closer to the original integrity and completeness of interpretation that time has taken away. On the contrary, the artefact that has not recovered its integrity keeps in itself the stratification of history and needs to be decoded. The perception of a complete image with all its parts requires a lower effort of imagination; therefore, the public's ability of interpreting the surviving elements is diminished. This leads to simplified and fast interpretation and to a reduced observation time having as a consequence fast fruition and reduced critical investigation.

Though the reconstruction hypotheses are the result of an interdisciplinary work among the various professionals who interpret all the surviving findings with scientific rigor. Anyway, this does not eliminate the errors of interpretation due to the fact that each person gathers information according to his/her own experiences. Therefore, virtual reconstructions are interpretations of the ancient time made by a certain group of people with the tools available in their time. Even the most rigorous reconstructions are an interpretation made in our time starting from the state of conservation of an artefact\(^7\). One of the fundamental problems of reconstructions is that they cannot be considered univocal, but will always be relative, because different people using the same means, information and scientific rigour might produce an image which has completely different colour and proportion ratios. Therefore, it would be preferred to have models that show the original information and data. Alternative solutions are to be suggested rather than the solution of only one reconstruction.

\(^7\) “Nonetheless, it should be pointed out that even the worst reconstruction does, in fact, document human activity, albeit mistakenly, and that it is still part of human history. Therefore, it should not be removed—at the most it may be isolated.” Brandi [1963] 1977, quoted from the English translation 2005, p. 69.
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Sitographic References


THE ADVANTAGES AND ISSUES OF INFORMATIONAL PRESERVATION DEVELOPMENT IN THE 21ST CENTURY
Based on the Dunhuang Mogao caves examples

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Keywords: Informational preservation, Protection of endangered sites, 3D recreations, Virtual and real Visiting of Caves

Informational preservation: origins of the term and its scope

In 2005 Salvador Muñoz Viñas in his book entitled *Contemporary Theory of Conservation* used a term of „informational preservation“ as a growing conservation-related category based on the production of records, which can than be used by the observer to experience the object virtually. (Muñoz Viñas 2005) In the 21st century a great shift from traditional methods of documentation is observed thanks to expanding impact of the internet or computer visualization and digitization techniques on our societies. Starting from making accurate manual copies of valuable but endangered objects and sites, passing to digital reconstructions using laser mapping and high-resolution imagery, this field of conservation of cultural heritage is rapidly evolving. However, there are institutions where all of the aforementioned ways of preservation are still practiced and coexist, at the same time enabling the viewer to experience how informational preservation functions in different contexts, demonstrating its evident advantages but also providing a possibility to ponder about issues they might hold.

Dunhuang Mogao Caves: different forms of preserving and exhibiting the site

One of the sites, where viewer is provided with full spectrum of possible ways of encountering cultural heritage, are Mogao Grottoes of Dunhuang, an oasis on the ancient Silk Road in China’s Gobi Desert, which has been recently digitally recreated. Thanks to The Dunhuang Research Academy 30 caves from 10 dynasties are now available to experience virtually. Shared data includes over 4430 m² area of murals with an impressive acquisition precision of 300 DPI. The project comes in part as a response to the explosion in the number of visitors to the historic site, which reaches up even to 18,000 people daily, threatening to damage irreversibly these ancient works of Buddhist art that have survived the vicissitudes of human activity and the elements for centuries. By entering each cave profile at the e-dunhuang.
com website, one can gain access to basic information related to the specific grotto such as its number, location and form as well as full text describing its construction and location of particular representations. Moreover, by accessing the virtual panorama of the cave, the online visitor can view each wall digitally recreated with meticulous detail, having the possibility of choosing a webVR mode available to use with a VR headset.

Figure 1. The impressive interior of one of the Mogao Caves (Photo credit: Anietra Hamper, ThreeWordPress)

Despite those high-tech contemporary resolutions other forms of informational preservation are still laboriously cultivated. In Dunhuang Academy the tradition of replicating sites wall paintings dates back to 1940s and has been maintained ever since. Originated as a mean for preservation this tradition evolved with time and now also is used for disseminating knowledge to the people that can not visit the caves themselves. The technique of creating replicas is a highly complex process starting with building a full scale wooden shell consequently aided with digitized images of wall paintings then printed in and transported into the newly created walls by artists. One of the main goals is to show replicas of an actual state of the caves not as they might have looked like. Therefore, all areas of loss are also included in the final copy. Moreover, the Dunhuang caves have been recently a theme of an exhibition at the Getty Museum in Los Angeles in 2016. Three caves, Cave 275, 285, 320, has been recreated in 1:1 traditional replica. The exhibition Cave Temples of Dunhuang: Buddhist Art on China’s Silk Road highlighted more than 25 years of collaboration between the Getty Conservation Institute and the Dunhuang Academy to protect and conserve this UNESCO World Heritage Site and was a unique opportunity to get a glimpse of traditional way of preserving information
about cultural heritage with addition of a 21st century technology. Presented forms of preservation, are only a few of the ways that The Dunhuang Academy manages to maintain this precious cultural heritage site of immense importance.

**The issue of passing information to the general public**

“Digital caves are a revelation for tourists - and offer respite for ancient historical sites. Jane O’Brien explores how 3D recreations can be even better than the real thing.” (O’Brien 2013) This short quote extracted from an article published on BBC website on 6th January 2013 seems to convey a rather uncanny message, if one does not know how the whole project came into being. The aforementioned quote clearly encourages tourists to choose a form of experiencing the site that is, in fact, safer for the monument endangered with mass tourism drawbacks, however this ascertainment still sounds quite disturbing as it can be misconceived by the not well enough informed audience. With new media used for exhibiting, there is a danger that experiencing authentic objects can become obsolete for some individuals as being not in tune with the way we’re absorbing knowledge in the 21st century’s reality, therefore the way in which new means of demonstrating cultural heritage are presented to the general public is essential for their proper reception.

**Future development of the field**

In the age of data, informational preservation will, most probably, continue to grow and evolve as a branch related to conservation of cultural heritage, with the ever-expanding influence of digitally preserved and shared information. The plethora of recently established techniques, merged with those that has been already cultivated for decades, can provide a viewer with broadened spectrum of tools made for understanding the work of art without consigning the existing ones to oblivion. However, the promotion of those new mediums should be looked upon with great care and scrutiny as a factor having profound influence on the way in which they are approached by the general public, with which help only can we reassure the future of the past.
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EXAMINATION AND DOCUMENTATION OF HISTORICAL FURNITURE
Working in a Bulgarian Art Depot

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Keywords: Historical furniture, documentation of preservation conditions, storage conditions

"Museum collections should be documented according to accepted professional standards. Such documentation should include a full identification and description of each item, its associations, provenance, condition, treatment and present location."

ICOM Code of Ethics for Museums, 2013, p.5

Basic Conditions

The following project was realised in the context of a Bachelor thesis in May and June 2017 in an art depot of the Museum of Folk Craft and Applied Art in Troyan (Bulgaria). Up to that point, there had been no record about the conditions of the pieces and no examination of the storage conditions.

Fig. 1 The art depot of the Museum of Folk Craft and Applied Art in Troyan (Bulgaria), conditions in 2017. Photo Credit: J. Zlatkov
Preparation

First, all available information, as well as the inventory books and photos, were reviewed. For the most efficient examination, a condition report was designed. The working space was in the hallway to reduce the dust exposure and to prevent mould from spreading.

The condition report was designed like a check list and is divided in three major sections. The working language was German, but after the examination all results were translated into Bulgarian.
Examination

The pieces of furniture were first examined for signs of mould and insect damage before being cleaned using dry methods. The condition of each item, regarding its construction and its surface, was then recorded in the created condition report. Afterwards each piece of furniture was documented with photographs. Pictures of the front, of the back and of details were taken.

![Image of examination area](image.png)

Fig. 2 Working space in the hallway with stations for cleaning, documentation and photography, 2017. Photo Credit: J. Zlatkov

Evaluation and Recommendations

The condition of the furniture varies greatly, with a large percentage of biologically infested objects. In conclusion, the following measures are recommended:

- Monitoring and cleaning on a regular basis
- Expanding the investigations of biological infestation (possibly isolating the affected objects)
- Continuing the documentation
- Appropriate conservation measures for the severely damaged objects

![Conservation Required and Active Biological Infestation](chart.png)
Special thanks to:

Museum of Folk Craft and Applied Art

Troyan
WHY WON’T THERE BE A FUNERAL?
THE CONSERVATION PROJECT OF THE JEWISH TORAH BASED ON AN ANALYSIS OF MATERIAL AND NONMATERIAL ASPECTS

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Keywords: Conservation of Jewish Heritage; Conservation Ethics; Tangible and intangible aspects

Fig.1 Destruction of the parchment support and the scripture of the Torah scroll (Photo Credit: Tymon Rizov-Ciechański, Academy of Fine Arts in Warsaw)
Torah, *The Law*, is the most essential text in Judaism and the Torah scroll is the most important sacral object. When a scroll is so destroyed that repairing it would require to be rewritten in its entirety, it is instead buried in the cemetery, with the respect awarded a deceased person. The Torah subject of the conservational project belongs to the collection of the Jewish Historical Institute in Warsaw (nr C-698), one of the most important research facilities in the world dealing with Eastern European Jewish history. Discussions regarding the conservation coincided with the first ceremonial burial of destroyed scrolls in Poland since World War II. It brought about the question *Whose is this object? Whose heritage is it?* First and foremost, it is the heritage of Polish Jews. However, due to the annihilation, it has become a *carrier of historical memory* (term coined by professor Marcin Kula) not only of Jewish memory, but also Polish and German. Wanted and unwanted memory.

![Stuck layers of the Torah scroll](Photo Credit: Monika Dzik, Academy of Fine Arts in Warsaw)

Part of the Torah is in a state of destruction and it cannot be fully opened. From the 33rd yeriah, the following layers of sheets are stuck together and significantly deformed, probably as a result of long-term exposure to water and pressure. In planning of the work, the following questions had to be answered: *Should it be conserved at all? Can someone who is not of the Judaism faith conserve the scroll? Could this work, aimed not only at the material conservation-restoration of the object but also at commemorating the victims of the annihilation, cause more bad than good, wounding someone’s feelings?* The arguments in favor of undertaking the project, are the facts that the scroll is not kosher,
it is one of the few mementos left of the exterminated society, the tradition of burial itself being the cause of such few Torah scrolls left behind. The spiritual value of the object was considered in the protective process. Questions about the form of possible conservation were posed to three rabbis and a sofer. The response is positive, as long as the letters are not corrected.

Fig.3 Original scripture (Photo Credit: Monika Dzik, Academy of Fine Arts in Warsaw)

The object embodies all the aspects described in the Burra Charter: 1.2 [...] aesthetic, historic, scientific, social or spiritual value for past, present or future generations. [...] For different groups or individuals these may be different values [Walker & Marquis-Kyle 2004]. The conservation project was also based on the „Nara Document on Authenticity“ [The Nara Document 1994] and works regarding the conservation and exposition of sacral objects belonging to other cultures. The project plans to utilize materials, which are appropriate for maintaining the character of the object. Based on a deep analysis of all the values held by the object, the decision has been made not to attempt to separate the stuck sheets. The scroll is currently undergoing conservation. Each conservational step and its range is subject to ethical scrutiny. The result of the analysis will be a master thesis written under the Conservation and Restoration Department of the Academy of Fine Arts (promotor W. Liszewska) and consequent publications.
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THE SHIFT OF PARADIGM WHEN RELIGIOUS ART WORKS BECOME HERITAGE: THE DILEMMA OF MATERIAL VS. IMMATERIAL SIGNIFICANCE.
An overview of Portuguese Reliquaries and Mural Paintings

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Keywords: Conservation-restoration of religious art works, material and immaterial values, Portuguese Reliquaries and Mural Paintings

Introduction

The 21st century introduced new perspectives on the contents and meaning of “cultural heritage”. By shifting the focus of conservation heritage from material to intangible aspects, the theoretical debate carried new approaches and challenges on its conservation. The 1989 CCI Code of Ethics defined “cultural property” as those objects having “cultural or religious significance” assuming their communicative function, as does the American Institute for Conservation (AIC). In this sense, “objects” (according to Barbara Applebaum’s interpretation (Applebaum 2009)) do not matter for what they are (materiality - historical or artistic truths), but for their meaning, their usefulness and communicative functions. This clearly refers to the immaterial or intangible aspects of heritage (Muñoz Viñas 2003) and as immaterial values matter they should be incorporated in conservation issues. But how do we maintain the intangible issues of an object that, during its lifetime, lost its original function and significance?

The Conservator-restorer versus globalized and cultural changing environments

The field of conservation has been increased in complexity. The guidelines of theoretical charters and principles of conservation are shifting and expanding. As Matsura (Matsura 2004) described, all tangible heritage embodies intangible components such as spiritual values, symbols, meanings, knowledge, or the know-how of craftsmanship and construction. But intangible values have a diaphanous nature, and as Kaufman (Kaufman 2004) argues, intangible heritage cannot be safeguarded if the pristine places (and genius loci) are not preserved. One of the biggest problems that conservator-restorers face concerns its
inherent mutability that requires the broaden of their approaches and methodologies, within a responsible and enlightening communication strategy towards the “mise en valeur” of the heritage legacy as a crucial repository for dealing with cultural diversity, transits (migrations, risks e.g.) and new types of fruition provided by post digital technology (Avrami, Mason & De la Torre 2000).

**Christian religious objects (e.g. reliquaries)**

The sacredness inherent to the relics and their reliquaries goes beyond their own materiality. It intermediates between the world of the living and the dead, that is, between the visible and the invisible or transcendental, the tangible and the intangible. All those values that undoubtedly are mentioned in the contemporary theory of conservation of Salvador Muñoz Viñas (Muñoz Viñas 2003). The intrinsic aspects and functional character, as well as the symbolic context of these Christian religious objects allow them to be appreciated through a subjective, symbolic and immaterial perspective. However, their exclusion from religious veneration imposed by canonical rules led them to deep changes of function and context. Accordingly, by Cesare Brandi’s classical theory the material nature of reliquaries is to be preserved as vehicles for the manifestation of image (Brandi [1963] 2006), since transcendentality/immateriality and physicality/materiality are relevant factors for understanding this heritage.

The post-Tridentine Church promoted the cult of the martyrs’ bones exhumed from the Roman catacombs in life-sized sumptuous reliquary-images (simulacri corpus sanctae) by exhibiting them to the cult of the faithful.

![Fig. 1 Reliquary of Saint Aurelius Martyr. Cathedral of Oporto, Portugal © Joana Palmeirão & José Pedro Santos Almeida, 2014](image-url)
These reliquaries functioned as powerful propaganda instruments of the Tridentine ideology and the Catholic faith, assuming relevant communicative purposes (spiritual, cultural, and even political), and simultaneously symbolic values attributed by the believers (subjects) (Muñoz Viñas 2002). Therefore, cultic and propagandistic character (immaterial values) were as important as the aesthetic one (the image). Thus, materiality ceases to be a vehicle for the manifestation of the image to become both, material and image, vehicles for a transcendental manifestation, a bridge between the earthly and the spiritual, between the tangible and the intangible. Their rejection and isolation by being removed from the sacred precincts to where they were commissioned, transforms or even abolishes their immateriality that we know subsisted at a certain period of their existence, becoming mere material containers. So, when we confer upon these objects a heritage status, we ask ourselves which aspects should we preserve? Conservators-restorers have to deal with the dilemma posed by their past significance and their present materiality.

However, what is beyond their “patrimonialisation” processes, considering their condition of rejected and oblivion objects? Despite alterations of their original function and symbolic values, relevant pristine intangible values are kept, notwithstanding the complexity of its assessment and rescue within restoration interventions. Consequently, the usual conservation approaches highlight the aesthetic and craftsmanship aspects disregarding the immaterial framework. Nevertheless, we consider possible to combine multidisciplinary resources (anthropological, theoretical and applied science conservation) towards an all-inclusive interpretation for different publics and communities.

Mural paintings in religious buildings

The protection of mural paintings in religious buildings and their intangible values requires resilience and can become an arduous task.

The mural painting division operating in Portugal in midst of 20th century (DGEMN) was responsible for various mural detachments, and consequently their framing and relocation to several museums, due to the Estado Novo (Portuguese Salazarist dictatorship) cultural policy. Frequently, panels with scenes from the same church didn’t even windup in the same exhibition location, leaving their reading incomplete.

Although detachments/musealization of murals is not a matter of consensus among conservator’s community due to ethical issues, occasionally, deterioration conditions require extreme solutions of strappos and staccos towards their future preservation.

Once this step is taken, a status changes and an identity annulment is acquired. Since it’s virtually impossible to detach all paintings mural coatings, the reading and iconographic scenes remain fragmented and their interpretation disruptive. This change affects both free-standing paintings in churches as well as displaced panels to museums. We can highlight the relationship within pristine architecture and the tridimensional appearance as a technical issue for the spectator apprehension as the most relevant loss value. Within a process of gains and losses the main achievement of musealization processes will be the new
bidimensional surfaces to be regarded as decorative fragments, but where intangible values are not easily recognized without digital documentation of the original sets.

As preconized by ICOMOS (ICOMOS 2003): “The value of architectural heritage is not only in its appearance, but also in the integrity of all its components as a unique product of the specific building technology of its time. In particular the removal of the inner structures maintaining only the façades does not fit the conservation criteria”.

Fig. 2 Mural painting “The deposition in the tomb” (fresco of the 16th century) in loco. Church of N. Sra. da Azinheira, Chaves, Vila Real © SIPA

Fig. 3 “The deposition in the tomb” (fresco of the 16th century) detached from the Church of N. Sra. da Azinheira, Chaves, Vila Real © Joaquim Caetano, 2001
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References


LOOKING THE PUPPET IN THE EYES
DECISION MAKING PROCESS IN THE CONSERVATION OF JAVANESE
SHADOW PUPPET WAYANG KULIT

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Keywords: Shadow Puppets of Java; Conservation Ethics; Decision-making process

Fig.1 The wayang kulit puppet before the conservation process (Photo Credit: Tymon Rizov–Ciechanski)
Performances with the participation of shadow puppets are part of the traditional ancestry cult rituals in Java. The parchment puppet comes from the collection of the National Ethnographic Museum in Warsaw. The silhouette is covered with a layer of paint on both sides. The animation handles are made from the horn of a water buffalo.

**Background**

The ethnographic, complex character of the object required deep analysis of technical, technological, iconographic and social aspects. Therefore, an interview was conducted with the foundation for the discussion regarding the decision about the scope of conservation of the material itself and its structure as a carrier of ideas.

**Irredeemably destroyed material – salvaged idea**

Destroyed material is always of an irrevocable nature. The breadth of repairs and secondary layers largely covered the original substance. An important loss was that of the most essential element of the silhouette – the eye. The eye of a wayang kulit puppet constitutes an essential quality, giving the puppet life, uncovering and displaying the character of the puppet, its emotions and moods\(^1\). Would the conservation of the material in this context bring back the idea and return to the object not only aesthetic values but also meaning, recreating the idea?

**What to leave?**

In order to respect the layers of history, the decision was made to leave the bolt and handle repairs made with string and the many paint layers were stabilised.

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1 The importance of the eye as an element of dolls, represented characters, is extensively discussed by Mrázek, 2005, p. 29 – 46.
What to remove?

The disrupted openwork of the parchment base had been repaired with the aid of metal wires. In addition to the potential threat of the paint layer being damaged as a result of their presence, problems of a physical and chemical nature, namely the risk of corrosion, had to be considered. These dangers led to the decision to remove the wires.

Fig. 3 The metal knot wrapping disjunctive parts of the support (Photo Credit: Magdalena Szymanska)

What to add?

As reconstruction of materials is accompanied by the preservation of the „true nature” of a given object, also in terms of the idea expressed by the material, the decision was taken to conduct a reconstruction of the eye, which in Javanese tradition determines the puppet’s being. The reconstruction was made with the use of water buffalo parchment produced contemporarily in Indonesia in accordance with historical documentation regarding measurements and technology.
Fig. 4 (a) Missing puppet's eye (Photo Credit: Tymon Rizov-Ciechanski)

Fig. 4 (b) Reconstruction of the puppet’s eye (Photo Credit: Tymon Rizov-Ciechanski)
Conclusion

Reconstruction is one of the most visible symptoms of interference in the structure of relics. The reconstructions made have altered the material and the structure of the relic in order to uncover and protect culturally important qualities of the object, with the aim to make the perception and understanding of it more readily available. Ethical considerations regarding conservation-restoration are always accompanied by the individual intuition and personal sense of the conservator-restorer. Deep reflection supported by an in-depth formal analysis resulted in the decision to undertake the controversial eye reconstruction. So that one may look the puppet in the eye with a sense of a job well done and an ethically clear conscience.

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What is uncovering?

The primary reasons for creating wall paintings are decorative function and need of increasing aesthetic values of the interiors. Since, fashions and tastes have changed within centuries it is a common phenomenon that valuable historical buildings and interiors bear traces of those alternations in form of complex sequences of layers and materials, e.g., paintings, polychromies, modern house-paint layers, wallpapers, limewash and plaster. As a result, a precious wall painting has might been covered with more or less significant coats, that may be removed to reveal the hidden painting. Thus, uncovering is the conservation-restoration process of discovering or exposing a wall painting, which involves the controlled removal of various overlying layers by means of mechanical and/or chemical methods.

Fig. 1 Uncovering the wall painting in the Church of Our Lady, Bruges (Photo Credit P. Węgrzyn)
How discover a wall painting?

Beside shifts in fashion, there are other reasons for covering the painting such as: adaptation of the building by new owners, poor condition of the decoration, shifts in functions and religion. Collection of information about all these facts and determination the history and significance of investigated site is a first step in locating covered paintings. Close visual investigation done by wide range of specialists may be also helpful. However, the great number of wall paintings was discovered accidentally during building works or automatically due to vibrations, flooding, fire and aging of the materials.

Further investigation

When presence of desirable wall painting is proven, it is crucial to establish range, condition and character of the painting and particular layers to determine further treatment and make right decision on uncovering. Theoretically, non-invasive methods should be applied. However, available techniques do not provide many information in a wall painting examination. Thus, usually method based on removing small areas of particular layers, called “test windows” is used to investigate the character of the wall painting and its stratigraphy. This treatment demands experience and aware and logical approach to eliminate unnecessary deterioration of the painting and to reduce the number of windows with the maximum level of obtained information.

To uncover or not?

The most difficult step in uncovering seems to be the decision-making process. Discovering the wall painting is always an exciting event and involve a temptation to uncover the most interesting parts as soon as possible. However, the discovery does not always mean that the painting must be uncovered. Many factors such as: assessed state of preservation and value of the paintings, risk of treatment, way of exposition and arrangement after intervention, economic issues, function of painting and building, environmental conditions and other external concerns must be considered before any irreversible steps are undertaken.

Case study I: necessity of uncovering

The basic question about sense of uncovering appeared during works on a decorative neogothic wall painting in the church of Our Lady in Bruges, Belgium. Treatment was done in autumn of 2017 in cooperation with professional conservator-restorers within the Erasmus+ Program.
Historical photos and visible texture indicated a painting covered under a layer of grey modern house paint. Preliminary research and first attempts of uncovering testified a good state of preservation of the painting and a lack of other significant polychromes. Thus, the decision on complete uncovering was made. The goal was to present the original character, aesthetic values and consistent iconographic program of the chapel devoted to Virgin Mary. The treatment had to be carried out carefully and patiently, without rush. Better result of uncovering means narrower range of further interventions and more authentic appearance of the painting.

Despite various methods were widely tested and initial uncovering gave highly satisfying results, further works turned out to be more complicated. Many factors such as various adhesion of paint, arrangement of underlying layers and bad painting condition that was expected caused that methodology had to be constantly switched. These facts together with a rush, caused by the coming deadline result that the revealed wall painting exhibited a much more miserable appearance that it was predicted. Therefore, the question about the sense of uncovering was posed. Perhaps, a total reconstruction of the repetitive pattern painted on the grey surface, keeping the painting underneath should have been considered. This would reconstruct an idea, the most important issue in this type of decoration, preserving intact the original substance.
This case shows that we cannot use schemes and general statements in the assessment of complex structures of wall paintings, which features depend on numerous factors. When the treatment deteriorates the painting, we are obligated to stop the intervention and find another solution or even abstain from uncovering up to a further development of better conservation-restoration techniques. Of course, there is always another side. Conservator-restorers must also consider a settled schedule of works, cost estimate and owner’s requirements. Even the most ethically-proper approach and sophisticated design of conservation-restoration usually failed in a reality check. Therefore, conservator-restorers must be able to consider all option of conservation-restoration and to balance goals of uncovering against risk, cost and effort it involves.

Case study II: dealing with multiple polychromies

The following example shows another, more complex problem – the presentation and arrangement of newly discovered wall paintings representing multiple phases of decoration. This issue was considered during internships in the church of a small village, Kąty Bystrzyckie in Poland, in 2016 and 2017, in which students and professors of Conservation-Restoration at the Academy of Fine Arts in Cracow participated. Investigation was held as a result of revealing the gothic paintings in the nave of the church in previous years. The main goal was to determine presence, range and condition of similar paintings in the presbytery as well as to prepare an appropriate concept for further conservation treatment.
Stratigraphic researches were carried out simultaneously in various areas. Seventeen historical phases, including ten different painted decorations were discovered. Gothic paintings appeared on one wall and on the arch between nave and presbytery. Because some parts of the composition (the arch) were covered with later polychromies, it was decided to cease uncovering and leave the latest XIX-century decoration. Perhaps, the development of conservation-restoration techniques would allow in the future to examine the painting non-invasively and to uncover it, preserving other decorations.

The great number of overlaying decorations caused difficulties in the decision-making process about which of the layers should be exposed, which transferred or removed. To avoid irreversible damages, more interesting decorations were uncovered partially as witnesses of existing layers. Other areas preserved XIX-century polychrome. As a result, an interior like a mosaic consisting in fragments of different decorations, that could not be visible together at the same time, was created. This arrangement may look illogically, however since the church acts mainly as tourist attraction, it seems to be acceptable, especially when the church’s history would be explained on posters.

Fig. 4 The arrangement of a few uncovered painting layers in the Presbytery of the Church St. Catherine of Alexandria (Gothic, Renaissance, 19th and 20th centuries), Kąty Bystrzyckie, Poland (Photo Credit G. Głazik)

In case of multiple decorations, it is hard to decide which is more valuable, which should be exhibit. Is it better to show all layers partially or focus on one decoration, or maybe adopt a puristical approach? Probably, there are no settled rules, and each object must be always considered individually. Nevertheless, conservator-restorers should be mindful of historic
truth, authentic qualities and a statement that it is better to do less than irreversibly damage an artwork. Wall paintings are part of a great cultural heritage, not only in a domestic, but also in a world-wide context. Uncovering of paintings often provide new knowledge, especially on the field of history of art, as well as enhance historic, artistic and aesthetic values of the sites. However, it also bears a risk of irrevocable loss of valuable paintings’ substance caused by inappropriate treatment or deterioration after uncovering. Thus, each decision should be widely deliberate and based on ethical issues.

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AUTHENTICITY VS. RESTORATION?

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Keywords: Authenticity, Conservation-restoration, Book cover, Stabilization measures

Authenticity and Restoration

The term “Authenticity” was documented in Germany for the first time in the 16th century. It meant something along the lines of "a hand-written, original version" (as opposed to a copy). (Pfeifer, 1993)

In 1994, the term “Authenticity” became the subject of the Nara conference, which produced the “Nara Document on Authenticity”. (The Nara Document, 1994) It was here that it was recognized and formulated that the change of cultural goods belongs to the character and essence of the good’s authenticity. The Nara document warns against the loss of authenticity and calls for the preservation of the current state for the transmission of cultural heritage.

Through the inevitable loss of information, via forced interventions in material, it can become difficult to assess the previous state of the material. Only through extensive information about the object’s material and historical characteristics can said object be understood. The preservation of authenticity and the associated integrity of the substance are, therefore, the standards on which every intervention of conservation-restoration should be based. However, the process of decision-making in conservation-restoration is always a balancing act, as the preservation of authenticity is in every way limited when an intervention becomes inevitable. An invasive procedure can significantly damage the character-determining properties of a cultural object and should therefore always be well considered.

Preservation of authenticity with an example from practice

The book cover depicted in Fig. 1, is an alum-tanned half leather cover with wooden lids and metal clasps from the 16th century. The cover leather is missing on the entire upper half of the spine, including the head section and on much of the back cover.

The remaining areas of the binding leather have considerable mechanical damage and a strong abrasion of the grain. The leather is very cracked, dry and brittle, in some areas
particularly thin, and has partially detached from the subsurface. The upper book clasp, as well as smaller parts of the wood from the front cover, are missing. The book cannot be opened wide without exerting great pressure on the book itself. The mechanical stress would be too great and could lead to breakage of the spine.

Before securing the damages, it is not recommended to use the cover, as a further loss in material could be incurred. Within the scope of stabilizing conservation, securing and refastening the loose parts of the binding leather should take place. The particularly fragile areas on the edges of the leather fragments can be secured with wheat starch paste and thin Japanese paper.

To unburden the still existing book clasp from further stress, the missing clasp should be added, if possible without direct intervention. It is advisable to implement the missing clasp by integrating it into a dust jacket as part of a preventative conservation measure. The use of a dust jacket also provides good protection against new damages to the cover, even during use. This will ensure the sustainability of the stabilization measures and ensure that no new damage occurs.

Since the cover cannot be opened as much as one may like, and the fact that it is sensitive to mechanical damage (especially in the heavily worn back area) even after a stabilization, a restriction of use is necessary. Careful placement and opening of the cover, with a reduced opening angle could be achieved with the use of a book wedge.

Fig. 1 Book cover of the 16th century, view of the spine (Photo Credit: Juliane Graf)
The removal of the fragments found on the spine (which could be layered upon new material such as leather or Japanese paper) is out of the question due to the chance of losing more original material is too high. In addition, a new material would be introduced, which would change the visual appearance and thus change the characteristics of the book cover.

The currently exposed spine allows insight into the binding, and the way the book block is made. This information would not be visible with a reconstruction of the black leather.

Nevertheless, the securing of the loose and fragile leather parts cannot be waived, even though this would also be an intrusion in the original substance. This is the only way to prevent parts from becoming detached and lost in the long run. Purely preventive measures are not sufficient at this point.

Failure to secure the leather could result in the loss of leather fragments and thus, a loss of information.

Measures of preventive preservation, in relation to stabilizing preservation and conservation-restoration, have the least influence of changing the authenticity of a cultural asset. In some cases, in order to be able to guarantee the preservation of some objects and thus their authenticity, conservation-restoration measures cannot be avoided.

By carefully examining the advantages and disadvantages of all possible treatment measures in advance, it can be ensured that no unnecessary measures are taken. Stabilizing preservation can be a good alternative to conservation-restoration.

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THE CONSERVATION OF WORKS OF ART DAMAGED BY AN EARTHQUAKE
An educational project for the frescoes in the church of Sant’Andrea in Norcia

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Keywords: Preservation of Cultural Heritage, Preventive Conservation, Emergency Measures, Earthquake in Umbria, Task Force Conservators for Umbria

Cultural heritage in an earthquake

An earthquake can damage cultural heritage in different ways and to a different extent. It can damage a work of art in its material essence or it can damage it indirectly by profoundly altering or even totally destroying the artwork’s habitat.

In the latter instance, the earthquake shatters not only the bond between the artwork and its historical and artistic environment, from which it often has to be removed, but also the bond between the artwork and its social environment, resulting in the loss of its original significance. In that sense an earthquake marks a strong hiatus in the life of cultural heritage, in its integrity and in its relationship with the stricken host community. Thus, any conservation-restoration project must endeavour to preserve the bond between the artwork itself, the community and the territory in order to rebuild the stricken area’s tangible and intangible cultural fabric and to prevent the artworks' dispersal and ensuing oblivion.

The artworks on which our project focused were damaged by the earthquakes that rocked central Italy from the summer to the autumn of 2016, seriously damaging the area’s cultural heritage.
Handling works of art in the emergency phase

Emergency intervention on cultural heritage struck by a natural disaster is regulated by a legal framework that stipulates the establishment of Crisis Units coordinated at the national (U.C.C.N.) and regional (U.C.C.R.) levels, operating on the ground through operational units for damage assessment and for the securitisation of both moveable artworks and buildings. Intervention on moveable artworks entails:

- recovering moveable artworks that are damaged or located on damaged premises;
- moving them to properly equipped earthquake-proof storage facilities in order to prevent their dispersal and to ensure their conservation;
- carrying out emergency measures on them in first-aid workshops set up inside the storage facilities, pending their eventual restoration and return.

In Umbria, moveable artworks were taken to the storage facility-workshop of Santo Chiodo in Spoleto (Province of Perugia), run by the Umbrian Regional Authority. The storage facility was the premises on which:

- the artworks in storage were collected and catalogued by the Umbrian Directorate General for Archaeology, Fine Art and Landscape (Soprintendenza Archeologia, Belle Arti e Paesaggio);
- the Opificio delle Pietre Dure’s workshop for securitising the damaged works of art was set up by the “OPD-Task Force for Umbria” and became operational in January 2017.
The moveable artworks were handled in accordance with an operational model based on standard criteria and methodologies for:
- providing first-aid for artworks;
- cataloguing the artworks by condition with a view to prioritising them for future restoration;
- storing the works of art.

This model was developed on the basis of the experience built up jointly by the Istituti Centrali del Ministero dei Beni e delle Attività Culturali (national conservation institutes: Opificio delle Pietre Dure in Florence and the Istituto Superiore per la Conservazione e il Restauro in Rome), which are an integral part of the U.C.C.N.

The wall paintings in the church of Sant’Andrea

In the context of an educational project developed by the Opificio delle Pietre Dure’s School of Higher Education, it was decided to intervene on detached murals from the church of Sant’Andrea in the village of the same name situated between Norcia and Amatrice.

The wall paintings, painted by the workshop of Sparapane da Norcia and by Paolo da Visso in the 15th century, had been detached and transferred onto a moveable Aerolam® support in the wake of a previous earthquake in 1979. They were taken to the Santo Chiodo storage facility after the tremors in late October 2016.

Fig. 2 Paolo da Visso’s _Crucifixion_ undergoing conservation-restoration

The aims of the operation

The goal of the operation was to return the detached murals to a condition in which they
could once again be put on display, thus rebuilding the bond with their region of origin, on condition that a site be identified allowing the work to be viewed and enjoyed in safe circumstances given that its original home is, at least temporarily, unsafe.

**Conservation-Restoration**

The eight panels comprising the wall painting cycle were in reasonable condition overall, the earthquake having caused limited or restricted direct damage.

A decision was therefore reached to go beyond the first-aid operational model, in other words emergency measures in the strictest sense of the term, and to conduct a more permanent operation; this:

- in order to optimise management of the storage facility’s spaces, inasmuch as the simpler cases are resolved in a timely manner even when their restoration is not especially urgent;
- and above all, in the interest of the work’s functional optimisation so that it could, most importantly, be returned to its original home.

Seven of the eight panels showed the following signs of deterioration phenomena:

- dust and deposits had built up on the surface during the tremors;
- localised saline efflorescence was discovered on part of one panel, probably caused by the change in environmental conservation conditions;
- retouching dating back to before the last earthquake damage had deteriorated.

Intervention on these works aimed to re-establish a good level of readability through light cleaning and the elimination of efflorescence, before re-working the deteriorated retouching. The panel with the Crucifixion, on the other hand, had been more seriously damaged by its fall.

![Fig. 3 The church of Sant'Andrea after the earthquake](image)
**Condition**

Aerolam® support warped and locally fractured (photo A)

Paint layers detached from support, temporarily faced with tissue paper (photo C)

Flaking of painted layer

Partial loss of previous edging repair

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**Conservation-Restoration**

Reconstruction of the support with local Aerolam® implants (photo B)

Fixing of the plaster layers to the support (photo D)

Fixing of the painted layer

Edging repair and reintegration

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Fig. 4 The *Crucifixion* before conservation-restoration

Fig. 5 The *Crucifixion* after conservation-restoration
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THE STUCCO DECORATION OF THE MONUMENTAL ARCH ON THE DECUMANUS MAXIMUS AT HERCULANEUM

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In the 1961, the open-air excavations directed by Amedeo Maiuri at Herculanum reached its final phase as a stretch of the Decumanus Maximus was fully uncovered, ending near to where a monumental arch stands (Camardo & Notomista, 2017, pp. 305-306, 318). (Fig. 1)

Fig. 1 Herculanum. Tetrapylon arch from the west side (Photo by HCP Archive)

Conserved immediately after its discovery, with the complete refacing of the piers, the arch had lost almost all its marble cladding, although it retained stucco decorations on the upper portion of the south facade and within the intradoses. Maiuri partially recomposed the

1 The excavation area is extended to the intersection with the upper Cardo III, to the College of the Augustales.
monument, although he did not use those stucco fragments which are stored in a cabinet in a workshop (VI, 16) on the *Decumanus Maximus* (Camardo & Notomista, 2017, p. 250) and conserved and restored by advanced students of the *Istituto Superiore per la Conservazione e il Restauro* (ISCR), along with a small number of other stucco findings of various provenance.

Fig. 2 Herculaneum. Chalcidicum, Tetrapylon arch and Decumanus maximus (Photo by HCP Archive)

The arch, which today stands isolated on the *Decumanus*, restricting movement along the road, in fact formed the eastern part of a *chalcidicum* (Najbjerg, 2002, pp. 136 ff.; Allroggen-Bedel, 2008, pp. 37, 44-45). This is partly visible in excavated area as a raised marble-paved section that is delimited to the west by a second tetrapylon arch, which is still buried under the volcanic material and which was only partially exposed during recent archaeological research in the area of the Basilica Noniana. (Esposito & Camardo, 2013, p.

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2 Regarding the architectural typology of the *chalcidicum*: Torelli, Mario 2003.
221 ff.) In the mid-18th century, the Bourbon tunnel explorations reached this stretch of the Decumanus Maximus and found, among a considerable number of sculptures, the remains of a bronze quadriga that would have stood on the western arch, and which must have corresponded to a second one on eastern arch. The two arches, at the edge of the portico, are sketched both in Pierre Bardet's plan of 1743 and in that of Jérôme - Charles Bellicard's one of 1754. (Alloggen-Bedel, 2008, p. 36 ff, figg. 1-4; Esposito, 2013, p. 223-225, Fig. 2, 3, 4, 5) The 18th-century graphic documentation illustrates an important area of the ancient city that has never been excavated. These plans show the location, beyond the northern edge of the current archaeological site, of a building now commonly known as the Augusteum (Pagano, 1996, p. 240 ff; Alloggen-Bedel, 2008, p. 36-45). It would have been a large public square surrounded by porticoes, dedicated to the imperial cult, the front of which would have been framed by the Chalcidicum. The 18th-century plans also depict the layout of the College of the Augustales on the opposite side, as well as the north-west corner of the Cardo III with the Basilica Noniana, which was re-examined in 2006. (Esposito, 2013, p. 231 ff.)

Fig. 3 Herculaeum. Tetrapylon arch, stucco decoration. Lacunars of the central vault (Photo by Marina Caso)

Fig. 4 Herculaeum. Tetrapylon arch, stucco decoration. Lacunars of the central vault, details (Photo by Marina Caso)

The stucco relief decorations of the east arch cover the large central vault and the two sub-arches, to the north and south. (Mielsch, 1975, p. 49, 133, K 36, pl. 32) The central vault (Fig. 3) is decorated with a lacunar motif that develops between a braided motif:

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3 Fragments of the bronze quadriga found in the 18th century are in the National Archaeological Museum of Naples; see: Gabrici, 1907, pp. 1-12; Pannuti, 1983, p. 175; Esposito, 2013, p. 222, 227-228. On the Mazzocchi horse (MANN inv. 4904), the only element of the conserved and restored quadriga, and a horse's head, also pertaining to the sculptural group (MANN inv. 115391), see: Scatozza, 1989, p. 110; on the conservation-restoration: Prisco, 2008, p. 194 ff., fig. 5.

4 These publications with previous bibliography.

each recessed panel has the same frame decorated with a Lesbian *kymation*, a smooth intermediate band and a ribbed one that surrounds a six-petalled rosette, alternating with a less frequent second type with four poly-lobed petals (Fig. 4). The decorative scheme is more complex in the intradoses of the south (Fig. 5) and north arch (Fig. 6) where the moulding around the panels is decorated with astragalus and beads. The coffers towards the edge are quadrangular with a central rosette, alternating with rectangular ones which frame a rhombus with a central flower; the mouldings of the frames reflect the decorations of vault panels. In the central section a composition can be reconstructed that includes two adjacent quadrangular coffers, where a rectangular one decorated with a central rhombus and lozenges framing rosettes and, in sequence, a panel with a frame adorned with a ribbed decorative moulding, followed by a smooth band and a Lesbian *kymation* inside which are depicted recumbent Dionysian figures, identified by a thyrsus in the north scene and the *pedum* held in his left hand in the south one. The quadrangular lacunar motif is also found in the stucco decoration of one of the intradoses of the *Chalcidicum* arches, where a complex frame sees smooth mouldings alternating with mouldings decorated with ribbing and Lesbian *kymation*, surrounds a circular medallion (Fig. 7).

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Fig. 5 Herculaeum. Tetrapiyton arch, stucco decoration. The intrados of the south (Photo by Marina Caso)

Fig. 6 Herculaeum. Tetrapiyton arch, stucco decoration. The intrados of the north (Photo by Marina Caso)

The arch's stucco work can be placed in the Neronian period by their decorative syntax and execution (Mielsch, 1975, pp. 49-50), inspired as they were by the compositional schemes of the sober classical rigour of late Republican tradition, in a way that is entirely coherent with the solemn character of the related building complex.

The dating of the arch's stucco decoration would not be many years removed from that of the sculptural cycle of the *Augusteum* with its statues of the Julio-Claudian family members,

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6 See the stucco decorations of Villa of the Papyri, room of the first lower level with a stuccoed vault: Guidobaldi & Esposito, 2012, p. 107 ff, figs. on p. 110-114.
donated by the Augustale L. Mammius Maximus around AD 50. (Allroggen-Bedel, 2008, pp. 37-40, 251-255) Instead the wall paintings of the later fourth style (Guidobaldi & Esposito, 2012, p. 327 ff.), found during the Bourbon explorations of the Augusteum, can be attributed to a later phase, as can the imperial statues of the Flavian period, as part of a renewal of the building’s decorative scheme.

The dating of the decorative features of the architectural complex, which the 18th-century plans suggest was a single unit, does not completely resolve all the issues related to the layout of the Augusteum and the chalcidicum in front of it, particularly regarding the evolving socio-political role that such an important location would have played over time within the urban fabric, through construction, reconstructions and renovations. In the absence of further archaeological data, however, it is possible to assume that the chalcidicum, obstructing passage along the Decumanus Maximus as it did, also defined the space in functional terms, establishing a significant topographical relationship with the Basilica and the College of the Augustales too7 - perhaps renewing of changing over time their original intended use - as well as with the public area of the city which still remains unexplored.8

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8 With regard to the hypothesis on urban planning in this sector of the city, with particular reference to the location of the Forum and the Macellum, see Wallace-Hadrill, 2011, p. 157 (identification of the Forum with the Augusteum); Adamo Muscettola, 1982, p. 11; Allroggen-Bedel, 2010, p. 367-371; Esposito & Camardo, 2013, p. 251-254. (hypothesis of placing the Forum to N/W of the public buildings identified on the Decumanus Maximus).
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Introduction

The temple of Apollo Epicurious built around the last quarter of the 5th century B.C. in the mountainous landscape of Bassae (Phigaleia, Peloponnese, Greece) is the first Greek monument to be included in the UNESCO World Heritage List in 1986. A temple remarkable for its archaic features (elongated stylobate 14.5x38.3m - 15 columns on the longer flanks and 6 on the facade, NS orientation) combined with daring innovations. Its architect, Ictinus, managed to creatively surpass the strict character of the Doric order merging Ionic half-columns with an Ionic frieze inside the cela and combining it with the earliest known Corinthian capital (documented by C.H. Hallerstein in 1812) replacing the deity’s statue. Behind the free-standing column, the adyton is illuminated through a side door. The temple stands as an exceptional case in architectural history, recomposing the Attic architectural model into an original creation of human ingenuity. Today it stands as an extreme case of a monument in need of both material and conceptual conservation-restoration.
Materiality

The temple, being isolated in the mountainous landscape, has managed to finally be one of the best-preserved structures of Antiquity in terms of the amount of original material (60%) that remains in situ, undergone no intervention until the 20th century. It is built mostly of local sedimentary limestone (Maastrichtian), originating from the rock formation in the immediate vicinity of the monument. The stone, set in the high altitude of 1130m a.s.l., suffers severe deterioration mainly due to frost in the winter and large diurnal temperature width in autumn-spring (8-0°C, humidity 80-100%, summer 20°C-humidity 60-30%, generally NW or NE winds). The numerous discontinuities, weak planes or superimposed weak veins facilitate ingress of rainwater (CO2 included) within the pores and external mechanical stresses such as earthquakes have a shear effect whenever discontinuities run parallel to the exposed surface. The result is a capillary cracking pattern, gradually widening and ending up in detachment of flat pieces (Theoulakis, 1995). Today’s conservation-restoration works combine stabilising clay mixture, pozzolanic cement grout and lead sheets (C.C.T.A.E., Papadopoulos, 2015).

The contemporary synthetic PVC canopy levels out the temperature fluctuations (+1-2°C) but has a serious misleading effect upon the building’s features. The temple’s colour as seen in open-air conditions has a wide tone variety from grey to orange and violet, even with deep blue shadows (F.A. Cooper, 1996) meant to stay naked, without stucco or paint. While today’s scattered parts of the temple on site are decolorised by white spots due to the microfauna, the standing parts of the temple undergo a very different discoloration. The shelter filters the sunlight, applying a yellowish shade on the original grey stone, giving an extremely false impression to the visitor, while the new stone supplements, which are used for the conservation-restoration, are whiter.
Fig. 3 The Materiality of the Temple, Cella (Kapadoukaki E., Soumas M., 2017)

Fig. 4 The Local Limestone, Colours and Textures (personal archive of the authors, 2017)
The current conservation-restoration program has maintained the building’s original structural system using reversible but strictly conservative methods (in the spirit of the Venice Charter 1964). Its documentation and evaluation criteria took place in 1990 but contemporary conditions including climate change suggest a need for new considerations. Experimentation according to this extreme case of material erosion and hostile environment is necessary. The authors suggest a turn to synthetic biology as it already has its footprint in architecture and archaeology. Instead of repairing the authentic parts by hand with new differentiated patched stone, genetically modified bacteria can be designed and injected in the cracks producing the exact same Maastrichtian limestone. Filling deep cracks would be far more accurate, and the new monolithic result will re-establish the integrity of each member having mechanical and aesthetic characteristics inherent to the building. This conservation-restoration method is technically doable and philosophically compatible with the monument’s apparent present-day value of newness and art-value as a whole.

Fig. 5 Visualisation of the Proposed Bacteria-Based Reconstruction (Kapadoukaki E. & Soumas M., 2017)

**Architectural Elements**

The temple’s first critical viewpoint is a panoramic view from the serpentine walkway along the slope of Mountain Kotilon, a hill without a peak, with a continuous knoll which shapes the top plateau where the archaic temples of Artemis and Aphrodite are placed. This frame reveals the linearity of the low jagged ridge, “broken” by the temple itself. Together, they have an axial effect facing north, forming a continuous facade in front of the Arcadian
mountains. The second is from the ancient SW route from Phigaleia (Pausanias’ route) where one can view the temple constantly as a singular object or destination, having only the sky as a background. This frame reveals the slightly horned cleft where the temple is set, reorganizing the rocky ridge sculpturally. Upon this ridge lies also the archaic temple of Apollo. The classical temple differs in design principles of scale and setting but it has a deep relevance to the archetype (engaged semi-columns inside the cella; see: Kelly N., 1995). The research presents a new detailed and systematic analysis of the landscape’s morphology. The authors regard it as a special case study combining “cultural and natural heritage” because of this truly unique relationship of man-made and natural. The temple with its surrounding landscape should be regarded as one inseparable monument. The modern observer has to approach it the same way in order to perceive the creative mind and conceptual breadth behind this man-centered design, instead of regarding it as a merely abstract or pictorial construction.

Fig. 6 The Temple in his Landscape (documentation-visualisation by Kapadoukaki E., Soumas M., 2017)

The present dilemma is that of keeping the temple covered destroying its connection with the stone ridge, or letting it stand visible in its landscape conserving its integrity as a whole artifact. The current management plan stands weak as there has been no alternative suggestion since 1987, supporting the “temple-canopy differentiated image” concept. Regarding the authors’
proposal for a new shelter, the selection of transparent material for keeping the temple visible is considered necessary. While side covering isn’t critical for temperature balancing, the short flanks of the temple can and should have their original visual contact with the ridge. As the temple’s plan is open and inviting but also sets a limit as the eye slips between the column shafts and tries to enter the cella, the proposed superstructure is offering a similar filtered view macroscopically, modifying the circular column plan into a hollow semi-circle. It’s hollow in order to accommodate each of the full-height columns during their conservation-restoration (current restoration methodology, C.C.T.A.E., Papadopoulos, 2015). This way not only they are respectively placed to their relative position helping the observer to visually reform the temple, but also one can examine each column as an independent sculptural unit. Vertical blade-like beams assemble together the long stripes of glass, as an abstract reference to the flutings. Furthermore, the overhead crane for the temple’s parts relocation is integrated fully into the shelter’s structure.

Fig. 7 The Design Proposal for the New Shelter (Kapadoukaki E., Soumas M., 2017)

Fig. 8 Comparison of Current and Proposed Shelter, Critical Views (Kapadoukaki E., Soumas M., 2017)
Bibliographic References


Abstract: The subject of this study is a group of ninety stucco fragments from the Herculaneum Archeological Park, which were part of the decoration of the Tetrapylon’s barrel vault located in the Decumanus Maximus. The archaeologist Amedeo Maiuri, former superintendent of the site, had been displaying them in a cabinet within a nearby domus, as part of his project of an open air museum, while other parts of the stucco decoration were repositioned in situ, with large lacunas. Our project’s aim has been to develop a new exhibition solution, pursuing an accurate recovery of the overall volume of the decoration, meeting the requirements of reversibility and stability of conservation-restoration treatments, while allowing further updates through new findings. Considering the wide range of methods at our disposal, the most effective technical support in matching the fragments, and acquiring accurately the shape has shown to be the 3D scanning and modeling.

Keywords: Stucco fragments, Herculaneum, Roman architecture, Amedeo Maiuri, 3D acquisition, reconstruction proposal, integration

During the academic year 2017-2018 ninety stucco fragments from the Herculaneum Archeological Park became the subject of conservations treatments within the ISCR laboratories in Matera, in the frame of the didactic activities of the School for Superior Training and Study in Conservation and Restoration of the Cultural Heritage of ISCR.
The artifacts were found in the 20th century excavation, inside the volcanic sediment, and were identified as part of the decoration of the Tetrapylon (end of the 1st century B.C. – beginning of the 1st century A.D.)\(^1\) located in the Decumanus Maximus. Some parts of the stucco decoration were found still in place, while the collapsed ones, following a general museographic project for the site planned in the mid-20th century by the archaeologist and superintendent Amedeo Maiuri\(^2\), were repositioned on the barrel vault’s inner surface.

\(^1\) Dating can be deduced from the pre-existing Augusteum, which, according to Mario Pagano (Pagano 1996, p. 229 ff.), and Mario Torelli (Torelli 2004, p. 117-149), was built between I cent. B.C. – I cent. A.D.

\(^2\) Maiuri was the chief archaeologist and director of Pompeii Archaeological Park from 1924 to 1961. Since 1927 he undertook the Herculaneum project, leaving the eighteenth-century tunnel investigations methodology in favour of wider excavations bringing to light the city. To have a clearer insight on Maiuri’s activity in the Vesuvian cities the recent publication on Ercolano 1927 – 1961 can be consulted (see: Camardo & Notomista, 2017).
The subjects of this study, although being significant findings, could not be placed back within the arch, so they were displayed in a cabinet, intended as part of Maiuri’s open air museum. Such showcase would have required a regular maintenance if located inside a museum; putting it in an outdoor environment revealed to be instead a very demanding choice: the fragments within it were not, in fact, protected against the agents of degradation, in particular dust deposits, biological colonisation and water condensation inside the glass cabinet.

On the other hand, this showcase filled with a mass of overlapping fragments, wasn’t an effective instrument to properly enhance the artifacts’ aesthetic value. Its position inside the emporium VI,16 (see: Camardo & Notomista, 2017, p. 250), facing the founding area but not visually or functionally connected with it, was of no help for the comprehension of fragments’ provenance form the Tetrapyron.

As a result of these circumstances, and after sixty years circa from this first exposition solution, the option of putting the fragments back in their old showcase appeared to be no more suitable for their conservation. The conservation-restoration activity on the fragments was then flanked by a new design process, aimed at giving back the potential integrity of the work of art, by rethinking the solutions elaborated under Maiuri.

Anyway, the limited number of fragments cannot be placed in their context within the building because of two reasons. The first one is the lack of reliable data regarding the lacunaria decoration, having different geometries as square, rectangular or diamond shaped, and...
including both figurative representations moulded in relief and a variety of ornaments, ranging from zoomorphic to phytomorphic and human-like motifs. The second one is the impossibility to reintegrate with these very few elements the large missing portion of the Tetrapylon vault. What is more, there is the further chance to increase the number of excavation fragments belonging to the arch, searching the archaeological park storerooms.

Fig. 3 Stucco fragments inside the display cabinet in situ, before the conservation treatments. (Photo Credit: ISCR-Matera students)

The methodological approach to this problem has revealed to be closer to the one used during the in situ replacement of the fragments from the barreled vault of the Tetrapylon, only differing in the use of technologies and materials nowadays available, which allow a better compatibility with the constitutive material.
Hence, the intervention is based on the theoretical and technical evolution of conservation and the techniques of the 21st century, the goal being the restitution of the overall volume of the decoration, by simplified integrations, suggesting the various ornament modules, and enhancing the stucco fragments through a more appropriate exhibition system and with a more correct reading key, while respecting the previous historicized intervention.

The solution was then to obtain a free-standing structure, suitable to collect and display the different stucco findings currently available, but not excluding the revision of the exhibition system for a wider number of fragments, according to the different display conditions existing in a museum environment or in situ. Therefore, the intervention should have been reversible and constantly updatable. Besides, considering Herculaneum seismicity, the exhibition system should meet certain requirements, like stability and self-supporting structure.

Fig. 4 Stucco Fragments repositioned on the barrel vault’s inner surface on Maiuri’s project. (Photo Credit: ISCR-Matera students)

Fig. 5 Sketch of the restitution of the overall volume of the decoration in the exhibition. (Author of the sketch: ISCR-Matera students)
The first problem in trying to design this new exhibit was then to understand the ancient position of the fragments within the building, since the Roman stucco technique generally consisted in the repetition of modular decoration. This practice permitted in antiquity to solve quickly and accurately the modeling of the architectonic surfaces, while other figures could be directly modeled in the lime mortar. But the molds employed for the decoration could have different dimensions and shapes, imprinting small differences in the decorative pattern. These differences have revealed very useful to understand the right position of each fragment and the general appearance or the vault’s lacunaria decoration. On the basis of these information it was thus possible to propose the reconstruction and the re-collocation of the stucco fragments in situ.

Fig. 6 Graphic reconstruction of the decoration and repositioning of the stucco findings. (Author of the graphic reconstruction: ISCR-Matera students)

3 The most acknowledged publication on Roman building technique, that our team referred to for the stucco decoration study, is Adam, 2005.
Since there are no matchings, the guide line for juxtaposing the artefacts is the state of conservation and the graphic reconstruction of the decorative features. This approach was already used soon after the excavations, when the first attempt of matching fragments, with no archaeological clues of the right original position, took place: some of the stuccos were hence placed according to a philological method. As a result, fragments were placed side by side without having a real contact between them.

In the preliminary phases of the intervention here exposed, in addition to shape, dimension and decorative features, the stucco fragments were also analyzed with a special attention to the traces of molds orientation and to their conservation conditions. In fact, most of the deterioration process occurred before the destruction of the monument and the fragments were then sealed up for centuries, so similar conservation conditions represent a hint for a nearby ancient position of the fragments. For this reason, stucco elements with a highest level of erosion were distinguished by those in a good conservation state. At the same time, fragments featuring different ornaments orientation from the ones belonging to the main decoration were put aside, because they couldn’t match with them.

The second main issue was the identification of the most suitable integration techniques. In the last decades the most employed system for the assembling of fragmentary ancient wall decorations (such as mural paintings, mosaics and stuccos) consisted in the fragments’ lodging by means of a mortar that reproduces the preparatory layer, thus obtaining a sublevel\(^4\). This mortar can also have the purpose to suggest the missing part of the decorations, reproducing the general design through its direct incision on the surface. This method is still commonly applied in archaeological sites or in museum exhibition, thus it can be considered as one of the most tested systems\(^5\). The disadvantages of that solution are nevertheless various: it is not easily updatable and it doesn’t entirely develop the overall volumes of the original decoration.

Another solution taken into account does not imply any plaster to assemble the fragments and to reproduce the preparatory layers. It consists instead in gathering the fragments of the decoration on a panel that reproduce the arching of the vault. In this solution the design

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\(^4\) This method is exemplified by the intervention conducted upon the stucco fragments of Villa Farnesina, now exposed in Palazzo Massimo Museum, in Rome (Gasparri & Paris 2013, p. 399 – 400, p. 403 and p. 414 – 415).

\(^5\) As a matter of fact, since 1932 the Italian Carta del Restauro refers to this kind of reintegration as a proper technique for fragments display: “Nelle aggiunte che si dimostrassero necessarie, o per ottenere il consolidamento, o per raggiungere lo scopo per una reintegrazione totale o parziale, o per la pratica utilizzazione del documento, il criterio essenziale da eseguirsi debba essere, oltre a quello di limitare tali elementi nuovi al minimo possibile, anche quello di dare ad essi un carattere di nuda semplicità e di rispondenza allo schema costruttivo; e che solo possa ammettersi in stile similare la continuazione di linee esistenti nei casi in cui si tratta di espressioni geometriche prive di individualità decorativa”, in Carta Italiana del Restauro (1932, p.2).
of the decoration can be simply recalled by means of a digital print\(^6\), directly applied on the panel. If compared to the first one, this proposal allows the insertion of further stucco fragments that could be discovered in additional researches. Besides, the main matter of using a digital print is that it doesn’t allow the perception of the three-dimensional volume of the original.

In order to obtain an accurate recovery of the integrity, the most effective technical supports appear to be the 3D scanning and modeling. These methods evolved significantly in the last few years and Cultural Heritage has been a major assessment and application field\(^7\). There are several advantages in employing 3D scanning and modelling techniques: first of all, it is a contactless methodology which cannot cause any stress to the artifacts; moreover, it allows a quick volume data acquisition with a high definition of the object surface; the processing of the information can be developed through a wide range of dedicated software of modeling. Such programs allow a digital manipulation of the 3D model, adaptable to the various aims of the elaboration and to the different kind of artefacts acquired\(^8\).

Fig. 7: Structured light scanning of a fragment of stucco. (Photo Credit: ISCR-Matera students)

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\(^6\) A similar technique was adopted in the valorization of the image of Mantegna’s mural paintings in the Cappella Ovetari in Padua (De Nicolò Salmazo, Spiazzi & Toniolo 2006, p. 295-297), though in this case the reconstruction foresaw the application of the fragments with a mortar, while in our proposal we kept in account the mobility of the fragments, implying a different and updatable kind of anchorage system.

\(^7\) In order to have an overview on the multiple options that 3D technologies offer when applied to museums exhibitions please refer to Neely, Liz; Langer, Miriam (Neely & Langer 2013).

\(^8\) An interesting study about the application of 3D scanning and modelling, conduced in one of the vesuvian cities, is Balzani, Marcello, et al. (Balzani 2004, pp. 1-11).
In this case choosing 3D technology can firstly help in matching the fragments, by comparing the modules and design of the stuccos, with more accuracy in respect of the simple visual observation. Secondly 3D models can be compared metrically by a dedicate software, that can simplify the conservator’s work of fragment’s matching and alignment. The accurate metrical and visual acquisition of the stucco fragments and of the Tetrapylon architectural structure could allow eventually the unitary reconstruction of the whole decoration of the vault. The different digital models suggested will be compared, and the most effective solution will be chosen by the Direction of the Archaeological site. In fact, digital models are a clear and immediate way to show the different ideas of exhibition systems, allowing a 360° visual of the structure, that can be spent at diverse stages of the project: during the conservation process, as a tool for the documentation; in the monitoring of the operations; as mathematical model for the designing of the external support for the fragments decoration, and for the study of its statics.

Once chosen this kind of solution, the third problem to solve was the identification of the correct material for the 3D modelling. Nowadays there is quite a limited choice of materials that can be employed in printing 3D shapes on the basis of a digital model. A product suitable for reintegration should fulfill several properties, such as compatibility, stability, reversibility; this cuts off the options at our disposal. Considering the possible positioning of the structure in an open air environment, there is a further restriction in the range of materials, since it would need to be stable to UV exposure and to weathering. This means that a weighted selection is compulsory, supported by scientific research concerning both the behavior of the product and its physical and chemical characterization. The choice of this material is still under debate within in the ISCR's laboratories, pursuing specific studies aimed at understanding the features and employment restraints of the most used materials for 3D printing.

In conclusion, the progress of technologies gives the chance to think of new solutions to existing problems, changing the conservator’s perspective. In the field of Cultural Heritage, anyway, new technologies can be only used if the theoretical assumptions make the

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9 In order to recreate the curvature of the vault measurements of the existing Tetrapylon are requested. A topographic survey of the structure and its 3D photomodel have already been realized by the Orientale University in Napoli (http://www.unior.it/ateneo/11518/basilica-di-ercolano-video.html and http://vast-lab.org/3dicons/page.php?obj=541).

10 On the other hand, the offer of materials is getting wider, but still the issue on their compatibility remains, see Neely, Liz & Langer, Miriam op. cit. chapter “The (near) future” (Neely & Langer 2013).

11 The most recent study led by ISCR about the 3D printing concerns the conservation of Palmira’s busts. It has involved the modeling of the reintegration and its printing; for the restoration report see: http://www.icr.beniculturali.it/documenti/allegati/RELAZIONE%20SUL%20RESTAURO%20DEI%20BUSTI%20DA%20PALMIRA.pdf.
operation on the artefact ethically and methodologically correct\textsuperscript{12}. Knowing the complexity of environment like the one of the Herculaneum Archaeological Park, where innumerable conservation-restoration activities have taken place throughout the decades, it is compelling to take into account the ideologies and cultural orientation that guided those previous interventions. It is even more important in this case, where the proposed solution is forced to face those put in place by a scholar of the stature of Amedeo Maiuri. This proposal is hence intended to follow his path, rethinking solutions supported by the 21\textsuperscript{st} century technologies.

\textsuperscript{12} The ethics at the basis of our intervention and our formation arise from Brandi’s Theory of Restoration (Brandi 2005), especially as regards the conception of integration and its boundaries, and concerning the aesthetic presentation of the work of art.
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Keywords: Conservation of Modern and Contemporary Art, Conservation Ethics, Living artist, Painting technique

Outline

Painting ID

The artwork studied and preserved is a contemporary painting entitled *The Hand* (1992) made by Marian Kasperczyk. It was made from house paint (acrylic and styrene emulsion) on cotton/linen canvas. The artist used his own technique: the “Back to Front”. It consists of applying paint on an unprimed canvas and coaxing the paint through to the other side of the canvas using brushes or even a broom. Thus, the Back is where the artist worked and the Front is where the paint came through.

1A
Marian Kasperczyk, (born in 1956)
The Hand, 1992, Private collection
House paint (acrylic) on canvas
**Before treatment**
Aude Richard©

1B
Marian Kasperczyk, (born in 1956)
The Hand, 1992, Private collection
House paint (acrylic) on canvas
**After treatment**
Aude Richard©
Degradation

The artwork was not conserved in ideal environmental conditions. Thus, it endured water damage, which led to the appearance of water stains, micro-perforations on the paint and loss of tension in the canvas.

Some other degradations like craters and pinholes appeared during the creation process and the drying of the paint.

Purpose

This publication presents a treatment issue during the conservation-restoration, which is the differentiation between the original pinholes and craters resulting from the drying process and the micro-perforations due to the water-damage.

Issue

The craters do not appear as "black holes". They have a wide diameter; the depth is small and the surface inside is smooth. The pinholes appear dark. They have a small diameter and appear deep. The micro-perforations are similar to the pinholes. Some of the degradations arose during the creation. They should not be changed, as this would mask the step of creation (Chiantore, 2012).

How can they be distinguished?

Under the microscope: pinholes have edges that rise whereas those of the micro-perforations seem smoother and lean inward.

Details of the craters and pinholes
Aude Richard©

Details of the micro-perforations
Aude Richard©
Deontology and Conservation Goals

French Law – Living Artist (Légifrance, 1992)

The artist can object to any modification the potential to distort the artwork. Conservators are responsible for any modifications to the artwork, even if they are legitimate. A dialogue between artist and conservator is needed when it is possible, as this prevents misunderstandings. In order to do so, interviews with Marian Kasperczyk were undertaken. He wants the conservation-restoration to return the artwork to its state before the degradations but not necessarily its original state.

Conservation Goals and Principles

After treatment, the artwork is not necessarily exhibited in its original state but instead in the state desired by the artist (Munos-Vinas, 2011). This allows to the observer to have a “visual impression” of the original state. The artwork stability and potential unity (aesthetic and structural) need to be kept in mind as a goal (Brandi, 2011). A list of the products and materials to use has to be drawn up; they must be compatible with the artwork’s materials (ECCO, 2003). Last but not least, the concept of reversibility is important, especially in the long run. However, complete reversibility of a treatment is impossible. We will talk more about “removability” (Charteris, 1999) and “re-treatability” (Appelbaum, 1987).

Conclusion

Treatments

Dark holes have been filled and retouched. They no longer interfere with the visual comprehension and the structural unity is conserved. A filling material, Aquazol® 500 at 10% + 67% of CaCO₃ has been used. Reglarez® 1094 mixed with pigments was used for retouching.

General Observations

Conservators must opt for documentation and preventive conservation approaches when it is possible. The former prevents a lack of information regarding possible original degradations and the artist’s wishes for conservation. The latter helps prevent future degradations without altering the artwork.

1 Diluted in White-spirit. Kraton G and Tinuvin have been added in very small amounts.
Bibliography


THE CONSERVATION OF THE AUTHENTICITY OF “CARMEN” (1974, ALEXANDER CALDER)

MORERA Carlota Santabárbara

Conservator of painting (Degree in conservation in School of Barcelona, 2004), and Degree in History of Art at the University of Zaragoza, 2000). PhD (cum laude) in History of art about the Conservation of contemporary art, theory, criticism and Praxis, at the University of Zaragoza (2016). Since 2016, she is professor of history of art at the University of Zaragoza. In addition to her academic training, she has worked for Museo Nacional Centro de Arte Reina Sofia (MNCARS), Centro de Arte y Naturaleza (CDAN) and like a cultural management and curator of contemporary art for a lot of cultural institutions. She is a member of the Ge-IIc, coordinator of group of conservation of modern art and a member of the group of conservation of street art; santabarbara@unizar.es

Keywords: Conservation of contemporary art, conservation ethics, authenticity, intentionality, reproducibility.

In the last century the situation in the artistic landscape has changed dramatically, emerging innovative artistic movements that produced a break with the concept of art itself, challenging the value of the material and highlighting the ephemeral, transient and fleeting of a society that had been decimated by two great world wars. Nowadays, artistic intention becomes the fundamental value to be preserved in the conservation of contemporary art, a concept on which the reflections of numerous theorists of restoration.

The authenticity of the works of art was based on the matter in which it had been created because the work was identified with the finished physical object. But nowadays it is different, the authenticity and the value of art is identified with many other values, especially when we are talking about digital art or new media.

In this sense, Heinz Althöfer is considered today the pioneer in the theory of the conservation-restoration of modern and contemporary art, but above all he is the forerunner of a line of European thought that raises the recovery of “Kunstwollen”, already advocated by Alois Riegl in the previous century. In this way, conservators and researchers continue today the study of the theory of the conservation-restoration of contemporary art with important contributions to the subject, as is the case of Hiltrud Schinzel, his disciple and collaborator, who has developed a parallel line of thinking about the conservation of contemporary art from an anthropological and phenomenological point of view beyond critical restoration (Schinzel, 2004).

The importance of Althöfer's thinking lies above all in being the first to suggest that the conservation-restoration of modern art is different from that of ancient art because it is based on different ideological assumptions. The German conservator considered that the principles
The ideology that governed it had to be fundamentally diverse, since contemporary works of art presented a double difficulty: on the one hand, the problems related to the material and technical question, and on the other hand, those related to the conceptual aspect and artistic intention, which had to be taken into account before any intervention.

We can observe this issue with the example of the conservation-restoration of Carmen, (1974, Alexander Calder), a work that belongs to the Reina Sofía National Art Center Museum (MNCARS). This work is an example of the monumental sobriety of the last years of the work of Alexander Calder. It was acquired by the Spanish state in 1992. It consists of a triangular structure at the base of the body and a horizontal structure of colors. The mobile forms in Carmen are two-dimensional and bright colors, combining yellow and red, producing a chromatic game of great vitality. Its shape allows natural movement driven by the wind.

The title of the work is a feminine name, in this case with obvious poetic and musical connotations. Made in 1974, it measures 7.62 x 11.56 m. It consists of 12 sheets of painted steel. The state of preservation before the restoration was quite bad due to exposure to open air for 20 years, which had completely degraded the colors.

At the time the museum decided to conserve the work, they got in touch with the Calder Foundation of New York, which was responsible for preserving and managing the sculptor's legacy. The foundation informed the conservation department of MNCARS of the exact techniques and colors that should be used, since it was going to be completely repainted.

The first step was to dismantle the work. All the pieces were numbered, and all the screws were saved following the order in which they were removed. Following the standards of the Calder Foundation, the paint layers and the preparation layers were removed by chemical pickling. For this purpose, steel spatulas, bristle brushes and stainless-steel scouring pads were used. Some pieces had up to six previous layers, of different colors. Residues of polyester mastic were also found to fill the incisions in the metal. Color proofs of the artist, black, red and yellow, appeared. These layers of paint in some areas are not completely regular, so it was cleaned until reaching the metal, homogenizing the surface. Several tests with different types of impressions were made to choose the most appropriate one.

The colors used are silicone products imported from the USA, and they are exactly the same colors that Calder used. The entire painting process was executed with a pressurized air gun, that is, with a perfect finish and industrial character, which was an appearance similar to what it would be in origin. Finally, on December 16, 2008, the mobile was reinstalled in the center of the garden, where they are still today.

In this example, we can observe the great importance that Althöfer gave to the authenticity and how already questioned the contradictions and difficulties faced by the conservation-restoration of art made nowadays, such as the incorporation of new materials and techniques, the technical characteristics of which had to be known before intervening.

Althöfer expressed his surprise regarding how the material degradation in contemporary art had increased surprisingly, especially in relation to traditional art. However, in some cases
he pointed out how the conservator had to face the reconstruction of the work of art, so the concept of traditional conservation-restoration was insufficient, in many cases having to accept reconstruction as a valid methodology.

Fig. 1, 2 In 2008, the sculpture “Carmen”, (1974 of Alexander Calder), was restored after twenty years in the center of the garden of the Sabatini building. The intervention consisted on to go back the original color of the work. The paint and preparation layers were retired with chemical pickling, follow the instructions of Calder Fundation. After, it was painted with the Pantone of the original colors. http://www.museoreinasofia.es/coleccion/restauracion/procesos/intervencion-obra-carmen-alexander-calder Acknowledgements for the fotos: Laboratory of restoration of MNCARS, Juan Antonio Sánchez Pérez, Jorge García Gómez-Tejedor, Carmen Muro García & Capa Foundry.]
The works of art today has been created based on a design that was generated by a software, the artist can only decide how this should be done. This execution mode enables the creation of an object without “aura” (Walter Benjamin, 1936). The hand of the artist does not longer intervene in the process of making the piece of artwork, in this way, the piece are no longer “autographs”, then, the authenticity resides in the idea, the intention or the experience created, but does not reside on the original matter (Heinz Althöfer, 1985).

The change in the definition of art has brought about the change in the importance of art matter. Actually, art is a different kind of communication. It is no longer a formal representation of reality, but it goes further, it transmits, communicates, provokes and, above all, creates experiences.

It is very important to see how the symbolic value of the matter acquires greater significance. We have quite grown accustomed to the copy, and the perception of it as authentic. Indeed, the original work is often replaced by a copy without people even noticing.

We don’t care about the historical value of the material. It is at this point that alternative theories and new contributions to the history of conservation-restoration, specifically in the conservation of contemporary art, must be quoted. Among them, one can quote the Theory of the Project by Francesco Lo Savio, who places the importance of art in the idea and not in the material creation. He claims that “The artist assumed the project in itself as the most significant part of the artistic process, an original and decisive act in the artistic creation, which is why he assigns the realization to others. For him, the physical production does not count since the work is already completed as a project, before formulating the idea, with all numbers and measures necessary to its possible production” (Righi, 1992, 85).

In relation to the conservation of contemporary art, maybe we must admit that we have to conserve the change, like a methodology that also means dynamism in its own definition.

The conservation-restoration of contemporary art is a change without an evident solution, despite the efforts, taken in that respect. What does exist, according to Hiltrud Schinzel, is a methodology based on documentation, investigation and minimum intervention, aiming at the potential unity, but being aware that this does not longer lie in the physical object, but in the artist’s idea or purpose.
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VII. Resolution of Florence, March 2018

The contributions of the conference on “Conservation Ethics Today” held in Florence in March 2018 and the discussions with all experts and institutions involved in the issues of this conference, pointed out the challenge to increase interdisciplinary cooperation for the best possible preservation of cultural heritage.

This resolution was formulated with colleagues of ICOMOS, E.C.C.O. and other institutions participating in the conference of Florence. Considering the significance of interdisciplinary cooperation as a fulcrum of successful preservation of cultural heritage, this resolution can be a contribution and a motivation to continue on this way, for a better cooperation between conservator-restorers and all experts engaged in this task.

Let’s increase Interdisciplinary Cooperation in the Preservation of Cultural Heritage!

Considerations and Intentions

Preamble

In the European Year of Cultural Heritage 2018, the participants to the ICOMOS conference „Conservation Ethics Today: Are our Conservation-Restoration Theories and Practice ready for the 21st Century?” demand increased interdisciplinary cooperation in the preservation of cultural heritage. It is acknowledged that improved interdisciplinary communication and cooperation between all specialists active in this field equates with improved knowledge of the multi-layered tangible and intangible meanings and values of cultural heritage; an essential precondition to the improvement in the quality of its conservation-restoration.

This appeal to the European Union and to all international and national institutions active in the field of heritage preservation is based on the International Charters and Documents of Conservation-Restoration of ICOMOS, E.C.C.O. and ICCROM.¹

Theory and Practice of Heritage Preservation

Considering the gap between theory and practice of conservation-restoration that runs like a common thread through the recent history of conservation-restoration and is still typical in the daily routine on site:

- That the aims, methods and techniques of contemporary conservation-restoration are


“E.C.C.O. sees the Conservator-Restorer as a specialist in the cultural heritage sector which includes many different participants and stakeholders. Each professional group will have specific roles within the field of cultural heritage.”, p.8
understood and applied by all who participate in the conservation-restoration process.

- That the theoretical principles informing the activities and processes of preventive conservation, remedial conservation and restoration are fully comprehended within the overall paradigm that is conservation-restoration.

- That the processes of preventive conservation, remedial conservation and restoration where applied, respect the cultural legibility of the heritage considering its connection and context within local communities.

- That an integrated approach to conservation-restoration recognises that multiple actors, from specialists to the general public, have a role in the derivation of public good from the cultural heritage resource.

- That the use of non-invasive investigation methods and techniques of cultural heritage are explored in the first instance fostering close cooperation between conservator-restorers, natural scientists, landscape archeologists and other specialists leading to a careful and sensitive handling of the heritage which includes sites and monuments

- That exemplary conservation-restoration projects are promoted and communicated to both specialists and public alike using different media platforms to disseminate different levels of information. These can include on-site visits and discussions, virtual presentations, scientific and popular journals, social media.

**Conservator-restorers and their partners**

Considering the involvement of many different specialists in the preservation of cultural heritage apart from the conservator-restorer, including traditional craftsmen, architects, structural engineers, archaeologists:

- That the competences of every specialist involved in the preservation, conservation and restoration of cultural heritage are identified and mapped in relation to the conservation-restoration process in order to define responsibilities and common areas of interaction.

- That conservator-restorers are acknowledged as key professionals in the interdisciplinary mediation and performance of research, investigation, documentation, dissemination and practical conservation-restoration and as these competences to do so are mapped by E.C.C.O.

- That the specific competences and skills of the conservator-restorer are required in the professional preliminaries and in the management of conservation-restoration on-site, including all the tasks of monitoring, maintenance and care.
Research

Considering the multi-layered artistic, cultural and historical values of cultural heritage, and as that cultural heritage is closely allied with the use of historical materials and techniques having their own conservation-restoration histories, and in consideration of the actual preservation status of the cultural heritage:

- That the teaching of historical techniques and the methodology of conservation-restoration is properly resourced and promoted in universities, institutes of arts, humanities and natural sciences to level 7 EQF.

- That a deep knowledge of the “technical” histories of art, architecture and archaeology is both fostered and recognised as necessary to the conservation-restoration process.

- That interdisciplinary studies and research projects by conservator-restorers, art historians, archaeologists and natural scientists are supported to increase interdisciplinary historical knowledge as it contributes to the development of theoretical concepts and their implementation in practice in all instances.

- That research projects in the conservation sciences have conservator-restorers as project participants to help develop appropriate conservation methods and techniques which are in accordance with ethical principles and the practical requirements of conservation-restoration.

Education and Communication

Considering the high level of academic education of conservator-restorers achieved in the last decades in Europe:

- That recognition of well trained and highly specialized young conservator-restorers translates into employment opportunities as a guarantee of best professional standards in the preservation of cultural heritage for the collective good of our society and future generations.

Considering the historical, social and ethical importance of our cultural heritage as a source of knowledge both in developing awareness of our past and as it becomes an essential element of our present:

- That education in all aspects of cultural heritage, its care, preservation and use is integrated into school curriculum, and, in respecting different cultural backgrounds have them experienced as part of European cultural heritage in a multi-cultural society.

- That an increased level of dialogue is achieved between every specialist active in the field of heritage preservation and the public; from young people to seniors across all social strata in order to promote knowledge and develop enthusiasm in and encourage identification with our cultural heritage.

- That the knowledge gathered through the processes of conservation-restoration form an
integral part of the dissemination and promotion strategies for cultural heritage.

- That conservator-restorers work together with other specialists involved in the dissemination and promotion processes of cultural heritage, explicitly including but not limited to the use of new technologies (3D, virtual reconstructions, etc).

- That the right to open access to all information concerning history, values and significance of cultural heritage, including problems and challenges of investigation and conservation-restoration is upheld leading to greater general knowledge and awareness of these issues.

**Short Conclusion**

Preservation of cultural heritage has always been a multidisciplinary, ever changing field. To guarantee a fruitful and efficient interdisciplinary cooperation between the professionals involved, it is necessary to map the professions in the field defining their specific roles and the ways and points of interaction between these roles with respect to the preservation of cultural heritage. The conservator-restorer is a central figure in this process as he/she discerns and advocates for the values, tangible and intangible which are embedded in material cultural heritage to both current and future users.
Greetings and our Short History

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Esteemed Presidents and Members of the ICOMOS Committees, it is my pleasure to open this event and to meet and greet you here in Florence, in this amphitheatre dedicated to Prof. Andrzej Tomaszewski.

I also particularly thank Wilfried Lipp, Jadwiga Lukaszewicz, Ursula Schadler-Saub and Boguslaw Szmygin, as well as all the other participants of these Committees with the patronising and supporter organisations.
Our gratitude towards ICOMOS and especially towards Theophilos Committee stems from our satisfaction for the evolution that the Foundation has undergone since May 2006, when President Andrzej Tomaszewski invited us to Cracow to the first meeting of the Teophilos Committee.

You all are part of the evolution of the Foundation and this Conference seems a good moment to quickly review the last twelve years of our history, hoping that Prof. Tomaszewski would also appreciate it looking from his ‘high position’. The “earthly” judgement is yours; your comments and suggestions are particularly welcome.

The Foundation is in its 27th year of activity in the field of dialogue among cultures and it is ready to hold its 20th annual Assembly; it was thanks to this Committee that the Foundation has come to define its research: opportunities beyond the tourism of consumption, “Life, Beyond Tourism”_: Heritage as a strategy to bring people together for dialogue and growth of the international community in peaceful coexistence.

The ethos LBT was followed by practical activity with the Life Beyond Tourism Model, its Application Manual on territories, Learning Communities and the Life Beyond Tourism Certification DTC-LBT 2018.

All this has been presented on various occasions and in thirty-seven publications and articles; among which:

- 2014, “Travel for Dialogue”
- 2016, “World Heritage SITES for DIALOGUE”
- 2016, “Slides Book”
- 2017, “HERITAGE for PLANET EARTH”

And in two days, on March 3, we will present:

- Certification for Intercultural Dialogue - Life Beyond Tourism in WorldHeritage Sites
- Life Beyond Tourism Glossary

This is really new and we underline that this is the Certification of the Romualdo Del Bianco Foundation - therefore of all of us - and it is voluntary.

The Life Beyond Tourism Certification DTC-LBT: 2018 provides quality controls by recognized certification bodies worldwide.

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When Prof. Tomaszewski invited us to join the Committee, he was well aware of the fact that we were not conservators neither part of the scientific world; he knew well that the Foundation was founded as a Research and Study Centre by the will of a Florentine hotel company that, since 1991, in Florence, a World Heritage Site, has contributed to intercultural dialogue, in particular among young people from the countries of the former Soviet Union and Soviet Bloc. Those were countries that had been kept together with the power of politics, while the Foundation was uniting them with the help of culture and friendship, in the "Historic Centre of Florence, a World Heritage Site".

1. THE LIFE BEYOND TOURISM RESEARCH

The key elements of the Foundation's research are "youth, heritage, travel, encounters, knowledge, respect, harmony and the world"; this is a commitment to a new way of travelling, an alternative to the tourism of services and consumption that 'consumes' heritage and the personality of territories and of all of us.

The invitation of Prof. Tomaszewski to participate in the Committee was strongly welcomed by the Foundation and its president in order to help dignify the tourism of services and consumption; that kind of tourism in which welcome and hospitality, instead of uniting people with dialogue, unite them only with a credit card number.

On the contrary, travel is meant to help people meet and dialogue, discover the values of the visited place, with a true welcome and true hospitality.

This leads to useful reflections on the strategic relevance of the traveller for the growth of the international community in peaceful coexistence and for the health of planet Earth: a relevance that I would define as 'determining', given the number of world travellers, that in one year exceed one point three billion people; therefore maybe we are talking about a great opportunity of over 5 billion days dedicated to dialogue among cultures in the world.

In response to the request of President Tomaszewski the research aimed at a synergy between 'the world of heritage' and 'the world of tourism'. The research has come to define the Life Beyond Tourism ethos, that is:
- not 'tourism of services and consumption',
- not 'sustainable tourism',
- not 'responsible tourism',
- not 'slow tourism',
- not 'egocentric tourism', nor 'egoistic tourism' (cultural tourism for my own culture, sport tourism for my own body, etc.).
LIFE BEYOND TOURISM® is a cultural and commercial revolution. It is altruistic travel, it is giving oneself to:
- “travel for dialogue”
- “travel to know our similars”
- “travel to respect diversities”.

Therefore, travelling in the Life Beyond Tourism way, we donate our time and our money to get to know and appreciate people like us, in their own cultural environment.

Welcome and Hospitality must return to being a human relationship. We must travel to exchange business cards between the hosts and the hosted ones, but also between the other guests we meet in each territory.

This is how Life Beyond Tourism sees a new commercial offer - based on a different ethics - for the growth of the international community. This offer must operate with the Quality Certification for Processes’ Management, to encourage Dialogue in World Heritage Sites with quantifiable and measurable objectives, certified by Authorities recognized on the International level.

This gives birth to:

THE LIFE BEYOND TOURISM MOVEMENT

lead by the new International Institute Life Beyond Tourism.

The key elements of the Movement are:

- **LEARNING COMMUNITIES**: consist of the subjects that are part of the travel chain who are aware of their importance for the territory and for the evolution of the international community.

The participants of the Movement are aware that a huge number of travellers per year, if oriented towards the new commercial offer Life Beyond Tourism for 'altruistic' travel, could constitute a huge force for the development of the international community based on a different ethics and not on services and consumption.

- **SYNERGY OF THREE UNESCO CONVENTIONS**

With LBT the UNESCO conventions 1972, 2003 and 2005 are considered to be in close synergy if 'commercially' perceived by travel operators; these three conventions can become an opportunity for a new commercial offer with a different ethics to favour dialogue and useful reflections on material and immaterial heritage and the diversity of cultural expressions.

On the basis of all the above we reached the concept of World Heritage Sites For Intercultural Dialogue for Planet Earth. This concept can be considered in its two aspects, different but intrinsically connected to each other:
SITES FOR DIALOGUE and HERITAGE FOR PLANET EARTH

So we have arrived to imagine an idèal bridge between heritage and planet earth, expressing how heritage can be useful to the health of planet earth thanks to dialogue. In other words, a bridge between the Colosseum and the Biosphere.

Having identified this value in Heritage, we have started to perceive Heritage as a strategic instrument for the international community and health of planet Earth through dialogue and not only as its conservation and enhancement.

- WORLD HERITAGE SITES FOR DIALOGUE are strategic to promote travel.

Through travel, it is possible to activate the encounters between cultures, and through encounters it is possible to enhance knowledge.

Knowledge will enhance dialogue and useful reflections on different cultures of this planet for a more effective mutual understanding and collaboration. Therefore, with Dialogue, it is possible to protect our planet Earth and foster the growth of the international community in peaceful coexistence, thus favouring peace and protecting heritage from war.

Those who adhere to the Life Beyond Tourism Movement believe in the importance of their own role in promoting dialogue.

- SCHOOLS FOR DIALOGUE IN WH SITES

Because of the strategic importance of the World Heritage Sites in rendering possible the encounters among multiple cultures, the Foundation believes it is necessary to open schools for dialogue in World Heritage Sites, giving birth to a new commercial offer for tour operators, certainly interested in it.

All of this is already active in Life Beyond Tourism:

1. Cultural and commercial not for profit platforms (.ORG) (.NET)
2. Bibliography
3. Glossary
4. Training for Trainers in different languages and in future with “cultural translation” of the content conducted by native speakers who know the context of their territory
5. Quality certification to control one’s own activity for dialogue and to be controlled and verified by the consumers.
2. THE CERTIFICATION FOR DIALOGUE DTC-LBT 2018

The Certification is a guarantee offered by the 'certified subject' regarding its commitment to dialogue between cultures with the possibility to measure its results and being measured by consumers.

The Certification is therefore a strong support for a new stimulating commercial offer for a non-self-centered but altruistic travel:
- give your time
- allocate your money
for the growth of the international community for the health of the planet.

3. CHANGE

The conclusion of the research Life Beyond Tourism is also in line with the appeal of the UN Secretary General Ban Ki-moon expressed in the post-2015 Agenda in point 4:

*Transformation is our watchword.*

*At this moment in time, we are called to lead and act with courage.*

*We are called to embrace change. Change in our societies. Change in the management of our economies. Change in our relationship with our one and only planet.*

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3 The Certification for Dialogue among Cultures - Life Beyond Tourism® (DTC-LBT: 2018) is a voluntary certification based on a proprietary scheme, articulated in differentiated requirements according to the type of adhesion that an organization intends to promote.

In correspondence to each single form of adhesion, emblems/logos are assigned as recognition of those institutions that stand out for sharing, adopting and strengthening practices in favour of sustainable tourism, specifically in the area of Dialogue among Cultures and respect for the Heritage of the Place, primary source of the attractiveness of a tourist destination.

The certification proposes a protocol that sets management criteria, requirements and performance indicators that cross the different levels of management and operation of an organization. It is a tool that is implemented starting from the sharing of the fundamental principles contained in the Life Beyond Tourism Manifesto (2008, 2014 and 2018) and that develops through:
- the implementation of management policies and operating procedures
- a specific staff training
- the offer of services and products contextualised and in line with the values defined by the major international organizations at work for the development of sustainable tourism.

The certification system is similar to the schemes adopted by the international standards ISO, UNI, SA, etc., where:
1. a non-profit organization promotes the Standard-norm,
2. the Standard-norm is presented and shared to receive an initial feedback within a neutral context,
3. the Standard-norm is issued, promoted and disseminated officially in the appropriate offices among the operators in the sector
4. an administrative body responsible for managing the aspects of independent recognition takes care of relations with a certification body with a third-party nature and independence
5. The Certification Body performs independent audits to verify the degree of conformity of the systems adopted by the individual business organizations and, if so, issues a numbered certificate in the name of the audited organization.
We too, with our research, work for the change and want to transmit a message of great hope in the synergetic force of the three UNESCO conventions 1972, 2003 and 2005.

We are thus preparing ourselves to face the topic of the training for trainers, to satisfy the training requests we have received. This makes us understand that there is a real movement of people who share what we are doing.

4. THE 20TH GENERAL ASSEMBLY

In two days, on March 3, our 20th General Assembly will take place. We will host 200 participants from 88 cities, 34 Countries in 4 Continents.

The Director Emeritus of ICCROM, Dr. Mounir Bouchenaki will present our 2018 publications:
- Certification for Intercultural Dialogue - Life Beyond Tourism in World Heritage Sites (work book)
- The Life Beyond Tourism Glossary.

The Director of the International Institute Life Beyond Tourism will present the book “Certification Standards for Dialogue among Cultures ‘Life Beyond Tourism’ DTC-LBT: 2018 with Regulations and Guidelines”.

There will be representatives of the academic world, civil society, territorial administrations and world heritage managers.

President Wilfrid Lipp, Secretary General Boguslaw Szmygin, Members of the International Scientific Theophilos Committees, this is the update that I wish to give you, in order to explain what I meant in the beginning speaking about my gratitude! This was a good opportunity to share those achievements with all of you ICOMOS Members.

Thanks Andrzej!

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4 The UNESCO Convention on World Heritage or “The World Heritage Convention”.
5 UNESCO Convention for the Protection of Intangible Cultural Heritage.
6 UNESCO Convention on the Protection and Promotion of the Diversity of Cultural Expressions
Stefan Simon¹

¹ISCS President, Yale University, Global Cultural Heritage Initiatives

ISCS’s purpose is to promote the knowledge and the preservation of inorganic porous building materials (IPBM), such as natural and artificial stones conservation. Employing a multi-, maybe a transdisciplinary approach, it aims at identifying research gaps, stimulate and support research activities and increase exchange and dissemination of knowledge and skills in order to promote greater understanding in the heritage field. Over the past years, we have seen a significant expansion of our membership, which was traditionally very Eurocentric, mainly towards Asia, but also towards other world regions.

With this expansion, we are learning about the importance to approach conservation across political and cultural boundaries, also bridging generational divides by opening up our committee to emerging professionals. There is no single, monolithic way of understanding cultural heritage and so, approaches to its preservation must necessarily reflect this diversity of perspectives.

If preservation can be described as management of change, good preservation can be defined as “sustainable management of change”, starting with the interdisciplinary exploration of the direct and indirect context of cultural heritage, of its values and therewith aiming at optimizing preservation, integrity and access. Modern heritage science has a crucial role to play in this process. In the interdisciplinary environment of conservation, it contributes significantly to exploring the context of cultural heritage, increases the values of objects and sites through research and education.

With sustainability having as well technical as social facets, we know that stakeholder involvement is a key criterion. In the current debate about the confederate monuments in the US, the need for a more inclusive identification and inclusion of stakeholders became obvious. Great disparities continue to exist between the more and less connected in their access to the internet - this is often referred to as the "digital divide". Strategies for more “green” practices, that maximize preservation while minimizing at the same time financial and ecological impact, need to be developed. The fourth industrial revolution, with the rise of the information age and unprecedented data processing and storage capabilities, comes along with both challenges and opportunities for preservation. Also, the cultural war crimes committed in the Middle East and Africa over the past years have brought some of the challenges for cultural heritage preservation to global attention.

We all have good reason to be generous and creative in our support for our colleagues in less privileged or conflict-torn areas, who defend their (and our) cultural heritage in the first line on the ground. In troubled times even much more than in peaceful times. This is a key
message, I think, the ICOMOS family should promote and live by.

It has been a great pleasure and a privilege to work along-side our esteemed colleagues Ursula Schaedler-Saub (ICOMOS NSC Conservation and Restoration of Wall Paintings and Architectural Surfaces) and Boguslaw Szmygin (ICOMOS ISC Theory and Philosophy of Conservation and Restoration), in preparing this conference, together with the Fondazione Romualdo del Bianco in Florence and the European Confederation of Conservator-Restorers’ Organisation E.C.C.O.

In ICOMOS, we know how crucial a close collaboration between the scientific committees is in order to advance the state of the art in our profession. And we are ready to embrace this challenge, recognizing the important role of conservators/restorers in the process.

Therefore, I would like to express my sincere thanks, especially to Professors Ursula Schaedler-Saub and Boguslaw Szmygin, for recognizing the need for improved communication and collaboration across all disciplines and organizing this important conference.

Due my teaching commitment back home at Yale in New Haven, unfortunately, I am unable to join you in person, please accept my apologies! I am very happy that my dear friend and colleague, Professor Jadwiga Lukaszewicz from UMK Torun, is representing, not only one of the oldest and internationally best academic training programs in conservation of stone, but also our scientific committee, ISCS, and wish the conference all success!

The outcome of this conference may become an important step to make our conservation theories and practice ready for the 21st century! Your perspective, your contribution to this is essential, thank you very much!