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RESTORATION PROJECT OF THE STUCCO DECORATION IN THE PRESBYTERY OF THE FRANCISCAN FRIARY IN KOSTANJEVICA, SLOVENIA

II. LEVEL MASTER'S THESIS

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INTRODUCTION

In this thesis I will write about the XVIIth century stuccoes present inside the convent church of Kostanjevica, which is a hill lying between Gorizia and Nova Gorica. Originally they were a rich large size decoration covering the whole nave and the whole presbytery, carried out between the middle and the end of the XVII century, but most of it was destroyed during the World War One. Nowadays only fragmentary parts of the nave have been preserved, while most of the decoration of the presbytery is still intact, but affected by a heavy restoration.

The main theme of the thesis consisted in the elaboration of a restoration project complete with a historical-artistic research about the stuccoes. The methods which have been followed in order to realize this thesis have been manifold, often at the opposite pole from each other: often the academic approach had to meet a compromise with the practical side. The special interest I have in the topic of stuccoes, besides being a chance to develop my historical-artistic background, comes from my professional experience as a restorer, now working for ZVKDS OE Nova Gorica. Already some years ago, as an employee of the Centre for Restoration of Ljubljana, I made an estimate for the restoration of the stuccoes of the presbytery of Kostanjevica in order to obtain some ministerial funds, unluckily without success, also due to the economic recession.

With such a background I chose as a theme for the master the restoration project of the stuccoes, preceded by a theoretic part which I assume fundamental for a correct methodological approach. When starting a maintenance or preservation act, it is felt as a necessary practice to accompany the project by a precise philological analysis, in order to identify the object in its reality as it came until our time. Only through such an operation one can get a complete knowledge of the object, essential for the preservation and whose value and reality cannot be modified in any way. Often, while working in Slovenia, I have run into an approach towards restoration based most of all on the priority given to the esthetical factor, aiming with every means to bring back the original aspect of the work of art, relegating the historical aspect to second place, sometimes without having recourse to the necessary documentation which would permit a more objective reconstruction. Such an approach, as analysed in the first chapter of the thesis concerning the history of restoration in Slovenia, has always been endorsed by the Slovene art historians, who, compared to their foreign

colleagues, seem to be less inclined to give a meaning of value to the historic superfetations, which can be not necessarily negative. Therefore I reassert the constant necessity, in every intervention of restoration, of an interdisciplinary debate between different professionals – art historian, architects, restorers, chemists etc. – for the elaboration of a methodology which should be as scientific as possible and backed up from both the preservative and the esthetical necessities.

Then in the present work there follows the restoration project, structured mainly in two phases. The fist one includes the cognitive plan of the object, taking place through the research of documentary information, in order to get to know the historic-artistic and technological story of the work. Thanks to the research in the bibliographic references and into the archives very interesting facts emerged, although I had to notice the fragmentariness of the contributions of mainly local interest, counting a small number of titles by Slovene or Italian authors, from which it emerges a lack of an uniform view, which here I have not adequately delved into, but which may give hints for future examinations. Once ended most of the documentary research, the second part of my work consisted in the visual analysis of the stuccoes, in order to value their state of preservation and to detect causes and effects of the deterioration, correlated by scientific analysis in order to determinate the construction materials and the techniques of execution. From the evaluation of the collected data I elaborated a restoration plan, including the following actions:

- preliminary removal of incoherent materials;
- pre-strengthening;
- removal of surface dirt with aqueous systems;
- removal of the not original lime coatings;
- strengthening of the surface;
- reconstruction of the missing parts, anchorage, replacement.

Finally I would like to thank all of those who helped me during my work, my mentor Saša Dobričič and in particular my co-mentor arch. Mateja Kavčič, who have always given an answer to all of my uncertainties and given satisfaction to all of my questions, Ivo Nemec and Sonja Fister of the Center for Restoration of Ljubljana for their timeliness in carrying out the scientific analysis, the Archives of the Diocese of Gorizia and Father David of the convent of Kostanjevica for the helpfulness they have always showed to me.

GLOSSARY

In order to provide a clear understanding of the text that follows, some definitions are examinated and adopted. There are many notions that describe different conservation activities whose differences are sometimes very subtle. For example a potential source of confusion exists when referring to “conservation”, because this term can be understood in a broad and narrow sense: “conservation” in narrow sense is opposed to “restoration”, in the broad sense “conservation” is the sum of the activities includes *restoration* and other possibly related activities. The confusion is accentuated because, in Latin languages like Italian or Spanish, “conservation” in broad sense is translates as “restauro” and “restauratiòn”, so that translations from these languages to English are often imprecise. The clear and consistent use of terms is a must; some conventions are established to allow for a coherent discourse, the documents from the ECCO - European Confederation of Conservator-Restorers' Organizations, the AIC - American Institute for Conservation of Historic and Artistic Works, the APEL - Acteurs du Patrimoine Européen et Législation.

Conservation:

- Preservation or restoration of the natural environment and wildlife. 2. Preservation and repair of archaeological, historical, and cultural sites and artifacts (Oxford dictionary).
- The profession devoted to the preservation of cultural property for the future. Conservation activities include examination, documentation, treatment, and preventive care, supported by research and education (AIC).
- *Conservation-Restoration*: any action, weather direct or indirect, on an object or a monument, performed in order to safeguard its material integrity and to guarantee respect for its cultural, historical, aesthetic or artistic significance. This definition conditions the nature, extent and limitations of the measures that can be adopted, as well as the interventions that may be made on cultural heritage (APEL terminology).
- Consists mainly of direct action carried out on cultural heritage with the aim of stabilizing condition and retarding further deterioration (ECCO).

- The conservation of a monument implies preserving a setting which is not out of scale. Wherever the traditional setting exists, it must be kept. No new construction, demolition or modification which would alter the relations of mass and colour must be allowed (Venice Charter 1964).
- Conservation means all the processes of looking after a place so as to retain its historical and/or architectural and/or aesthetic and/or cultural significance and includes maintenance, preservation, restoration, reconstruction and adoption or a combination of more than one of these (Burra Charter 1999).

Conservator-restorer:

- Museum or independent personnel competent to undertake the technical examination, preservation, conservation and restoration of cultural property (ICOM).
- *Conservator*: a professional, whose primary occupation is the practice of conservation and who, through specialized education, knowledge, training, and experience, formulates and implements all the activities of conservation in accordance with an ethical code such as the AIC Code of Ethics and Guidelines for Practice (AIC).
- *Conservator-Restorer*: professional who has the training, knowledge, skills, experience and understanding to act with the aim of preserving cultural heritage for the future, and according to the considerations outlined below. The fundamental role of the Conservator-Restorer is the preservation of cultural heritage for the benefit of present and future generations. The Conservator-Restorer undertakes responsibility for, and carries out strategic planning; diagnostic examination; the drawing up of conservation plans and treatment proposals; preventive conservation; conservation-restoration treatments and documentation of observations and any interventions (ECCO).

Heritage/Monument/Property:

- *Heritage*: valued things such as historic buildings that have been passed down from previous generations (Oxford Dictionary).
- *Monument* : a structure or site of historical importance (Oxford Dictionary).
- *Property*: 1. A thing or things belonging to someone. 2. A building and the land belonging to it. 3. Law the right to the possession, use, or disposal of something; ownership (Oxford Dictionary).

- *Cultural Property*: objects, collections, specimens, structures, or sites identified as having artistic, historic, scientific, religious, or social significance (AIC).
- *Cultural heritage*: are all objects, buildings and environments to which society attributes particular aesthetic, artistic, documentary, environmental, historic, scientific, social or spiritual values and constitute a material and cultural patrimony to be passed on to coming generations (APEL terminology).
- *Cultural heritage*: anything or concept considered of aesthetic, historical, scientific or spiritual significance (ICOM).
- *Natural Heritage*: any natural thing, phenomenon or concept, considered to be of scientific significance or to be a spiritual manifestation (ICOM).
- *Historic monument*: concept embraces not only the single architectural work but also the urban or rural setting in which is found the evidence of a particular civilization, a significant development or a historic event. This applies not only to great works of art but also to more modest works of the past which have acquired cultural significance with the passing of time (Venice Charter 1964).

Reconstruction:

- Reconstruction means returning a *place* as nearly as possible to a known earlier state and is distinguished from *restoration* by the introduction of new material into the *fabric* (Burra Charter 1999). This shall not include either recreation or conjectural reconstruction.

Preservation:

- Means and includes maintaining the fabric of a place in its existing state and retarding deterioration (Burra Charter 1999).
- The protection of cultural property through activities that minimize chemical and physical deterioration and damage and that prevent loss of informational content. The primary goal of preservation is to prolong the existence of cultural property (AIC).
- To keep something as it is, without changing it in any way. This general meaning is maintened when speaking of heritage preservation, wich could be

provisionally defined as »the activity that avoides alterations of something overtime«.[1]

Prevention:

- *Preventive Care* (also referred to as preventive conservation): the mitigation of deterioration and damage to cultural property through the formulation and implementation of policies and procedures for the following: appropriate environmental conditions; handling and maintenance procedures for storage, exhibition, packing, transport, and use; integrated pest management; emergency preparedness and response; and reformatting/duplication (AIC).
- *Preventive Conservation* consists of indirect action to retard deterioration and prevent damage by creating conditions optimal for the preservation of cultural heritage as far as is compatible with its social use. Preventive conservation also encompasses correct handling, transport, use, storage and display. It may also involve issues of the production of facsimiles for the purpose of preserving the original (ECCO).
- *Preventive Conservation* is an important element of museum policy and collections care. It is an essential responsibility of members of the museum profession to create and maintain a protective environment for the collections in their care, whether in store, on display, or in transi (ICOM).

Reintegration:

- The reconstruction of the pictorial (artistic) text in the lacuna. "Tratteggio" for example is a technique whereby colour is applied in fine lines that blend in with but can be distinguished from the original on close examination. Aesthetic reintegration contributes to minimising the visibility of damage and should primarily be carried out on non-original material (Cesare Brandi's Theory of restoration).

Restoration:

- 1. The action of returning something to a former condition, place, or owner. 2. The process of carryng out alterations or repairs with the idea of restoring a building to something like its original form. 3. The reinstatement of a previous practice, right, or situation (Oxford dictionary).

[1] Salvador Munoz Vidas, *Contemporary Theory of Conservation*, Oxford, 2005, p. 16.

- Treatment procedures intended to return cultural property to a known or assumed state, often through the addition of nonoriginal material (AIC)
- Consists of direct action carried out on damaged or deteriorated cultural heritage with the aim of facilitating its perception, appreciation and understanding, while respecting as far as possible its aesthetic, historic and physical properties (ECCO).
- Returning the existing *fabric* of a *place* to a known earlier state by removing accretions or by reassembling existing components without the introduction of new material (Burra Charter 1999).
- Its aim is to preserve and reveal the aesthetic and historic value of the monument and is based on respect for original material and authentic documents. It 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. The restoration in any case must be preceded and followed by an archaeological and historical study of the monument (Venice Charter 1964).
- All action taken to modify the existing materials and structure of cultural property torepresent a known earlier state (MCG - Museum and Galleries Commision 1994).

Reversibility:

- 1. A complete change of direction or action. 2. Reverse gear. 3. A setback or defeat. 4. The opposite side or face to the observer. 5. The side of a coin or medal bearing the value or secondary design (Oxford dictionary).
- Possibility of returning to the status found prior to an operation or action (ITALY). Use, in treatment of conservation-restoration, materials reversible in respect the essence of artifact (CUBA). A repair intentionally made to allow for it to be fairly easily re-done in the future (USA). (ICCROM, Participants' related terms of Sharing Conservation Decisions, 2008).

CHAPTER 1: THE EUROPEAN CONTEXT & THE INTERNATIONAL DOCTRINE

1.1 : The European context: overview of the main trends of thought and Theories of restoration of the nineteenth and twentieth centuries in Europe

- ***The main trends of thought and theories on restoration in the nineteenth and twentieth century***
- ***The theoretical thinking on restoration in Austria during the twentieth century and the influence of Austrian theory on Stele's view over Monument Conservation***
- ***Stele's Monument Conservation view***
- ***Development of conservation policies in Slovenia after 1945***

- ***The main trends of thought and theories on restoration in the nineteenth and twentieth century***

For many centuries restoration has been intimately connected with the aesthetic theories and the practice of art at specific times. Therefore the activity of restoration has always been correlated by strong dependency to the theoretical-practical activity of art, which has led to a concept of restoration that was either assimilated to the artistic creativity or seen as a subordinate activity to art.[2] Above all, restoration has always had a strong historical connection with ideologies and historical-artistic

[2] G. La Monica, *Ideologie e prassi del restauro, con antologia di testi*, Palermo, 1974, XXV:. The notion of the autonomy of art restoration is very recent. For nearly two thousand years the artist was also a restorer and this latter also acted as an artist. This is what occurs among the Greeks and Romans, who entrusted restoration to artists. The practice of conservation starts to spread especially among the Romans, as well as an "artistic ideological" restoration, together with a real anti-restoration (fakes, destruction, etc...). Romans commissioned art to the slaves: therefore they also commissioned to the slaves restoration itself. Artists are "at the complete disposal of those who commissioned the work" ... restoration of the work of art, for the restoration and the reiteration of the "illustration" of the Authority and its Beauty, of the Beauty of Authority. M. Cagiano de Azevedo, *"Conservazione e restauro presso i Greci e i Romani"* in "Bollettino dell´ Istituto Centrale del Restauro" n. 9-10, Roma 1952, pp. 60.: The restoration practiced by the Greeks and the Romans responds to "the clear willingness to restore the altered appearance of the work of art to its original one or to its intelligibility ... You want to erase the damage suffered by the work, you want a work of art to appear intact and to be easily understood what it wants to represent. The Platonic concept of "mimesis", ie art as imitation of nature-and therefore art as a way of knowledge of nature-is the origin of this point of view ... and it explains it, although it does not justify it. In this sense, as pointed out by La Monica, 1974, XXVII, "Restoration is an expression of a theory of art". M. Cagiano de Azevedo, Voce "Restauro" in Enciclopedia dell'Arte antica, VI, Roma 1965, pp. 655-657.

customs. Hence the problem, in the history of restoration, of a prolonged lack of a *specific scientific autonomy.*[3]

In this chapter we will briefly take into account the main trends and theories of restoration from the nineteenth to the twentieth century, with particular reference to the school of Vienna that has directly influenced the critical thinking of restoration in Slovenian territory.

The nineteenth century is the era of new theories; neoclassicism leads the way to a new aesthetic theory and a new idea of art, based on a thorough research on the ancient, focusing on the rediscovery of the Greek world rather than just the Roman culture, which the Italian Renaissance is based on.[4] In Europe we are witnessing throughout the century the experiments of scientists, physicists and chemists, who are trying to address, through their disciplines, conservation problems posed by archaeological findings and paintings.[5]

The real "doctrinaire" period of restoration begins in the mid-century with Viollet Le Duc (1814-1878), spokesman of the stylistic ideal,[6] who can be considered the first true theorist of restoration.[7] The French architect-restorer affirms that: "absolute principles… can lead to absurdity ...", and he dissents from applying the style of restoration of his time to the one of the original work of art or from preserving all the layers under the pretense of bringing back the work to its original character at any cost.

According to Viollet Le Duc a more balanced approach, adjusted to the specific technical, formal-stylistic and structural circumstances needs to be adopted.

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[3] This deficiency has been affected, especially from the twentieth century to nowadays, by the pressure of capitalistic customs and ideologies, G. La Monica, 1974, IX-X.

[4] The rediscovery of Pompei, revealing the artistic production of a Roman period that is no longer connected to monuments only but also to the entire city and to all social classes, contributes to this return to the ancients.

[5] Anyway, a turning point in the relationship between scientific inquiry and what we call today the artistical-historical discipline took place in England, G. Maino, L. Ciancabilla, *Progettare il restauro Tre secoli di indagini scientifiche sulle opere d'arte*, Firenze 2004, p. 21.

[6] Stylistic restoration (or restoration of the unity of style) was defined by Mèrimèe and Viollet -le-Duc in the mid-ninetheenth century. The movement was reinforced by the pragmatic and positivistic attitude of architects who emphasized the need to make use of historic buildings, and by the political ambitions of decision-makers for whom restoration became a question of national prestige. It evolved from "unification to purification" of style in Central European historicism, to "restauro storico" in Italy. With the increase of knowledge in history and the augmentation of tourism as an important beneficiary, stylistic restoration has continued throughout the twentieth century, influencing all regions of the world and continuing as a dominant feature in practice, Jukka Jokilehto, *A History of Architectural Conservation*, 1999, p.303.

[7] C. Chirici, Il problema del restauro dal Rinascimento all'età contemporanea, Milano, 1971, p. 101.

The restorer must be a technician, an archaeologist and a rigorous philologist in order to "revive" the work, he has to "interpenetrate the style, the spirit of the structure of a building as if he himself had directed the work"; it is essential for the restorer to know well its grammar, because restoring a building means "to restore it to a complete state that may have not existed at any given time".[8]

But this way Viollet-le-Duc, as pointed out by La Monica, "even with balance… in the less valid part of his theory and practice of restoration, which is the prevailing one, he slips into the scientistic and techno-centric illusion that is typical of the positivism of his time and, more generally, also of the industrial capitalism; "...he repeats the usual emulation of the modern restorer with the ancient artist".[9]

An opposite view on restoration is proposed by English critic John Ruskin (1819-1900), where the aesthetics of the romantic-idealistic historicism helps to affirm the concept of the artistic "creation" as individual, unique and historically unrepeatable.

Hence the impossibility of restoration as a repetition of the ideal/material creation of the work of art. Ruskin rails at the "destruction" brought on by restorations, and instead he suggests either an incessant care, which must avoid the forgeries of integrations, or the "necessity" for destruction.[10]

With Ruskin and Viollet-le-Duc the distinction between historical instance and aesthetic instance in restoration is therefore affirmed. Between these two extreme positions an "intermediate" one, encoded in the International Congress of Athens (1931) in which Giovannoni is one of the major players, comes forward and will prevail in the international field, and is especially advocated by the Italians Boito, Beltrami, Giovannoni and the school of Vienna (Riegl, Dvorak).[11]

When analyzing the Italian situation, what characterizes Camillo Boito (1836-1914), one of the founders of the philological restoration, is an intermediate eclecticism between aestheticism and historicism that, in accordance with the historical layers, supports the need to "preserve", rather than restore, against the trend of insane restorations.

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[8] Viollet-Le-Duc, Eugène E., *Entretiers et restauration des cathèdrales de France. Notre Dame de Paris,* in "Revue general de l'Architecture et des travaux publics", vol. 3, 1851.

[9] La Monica, 1974, CII.

[10] J. Ruskin, *On the destructive character of modern French restoration,* in "The Builder", august 23rd, 1873.

J. Ruskin, *The seven lamps of architecture,* London, 1849. 1. ed. It., *Le sette lampade dell'architettura,* Milano, 1981. By restorers, widespread at the time.

[11] Athens' charter follows the line of the scientific restoration and will be essential to all subsequent theoretical formulations on restoration.

In summary, according to Boito, restoration should be based on the thorough study of the artifact and the changes due to the passing of time, followed by an examination of what should be kept and what should be removed. The purpose is the distinction between the original state of the work (normal state) and the current state.[12] Later Luca Beltrami (1854-1933), who brought forward historicism without Boito's aestheticism, enhances likewise beauty and history, work and environment, with an historical -archival, philological and archaeological method of investigation and restoration.[13]

However, the indication of sociality, although in Beltrami is shy and positive, is still missing, meaning that the two fundamental problems of restoration and conservation, interacting at the same level, are not detected, that is the socio-economic, ideological and political one (already perceived by Dvorak in 1916) and the *theoretical-technical and practical one.*[14]

Gustavo Giovannoni (1873-1947) is the one who continues moving beyond Ruskin and Viollet Le Duc's antinomies that had been operated by Boito. In his formulations, a critical-scientific approach prevails over any other type of restoration, an "intermediate" position between the instances of art and the instances of history, in the unifying need for respect of the works- contexts and within the philological care.

The purpose of restoration is to preserve the authenticity of the structure of a work in its entirety, that is, throughout all its "artistic" life, not only during the first phase. Giovannoni considers Viollet-le-Duc's theory to be anti-scientific, because of the numerous falsifications and the arbitrary reconstructions; he accuses the private housing trade speculation, which may be opposed by the housing policy and the direct action of the municipalities; he pays attention to the financial, social, historical, philological and moral problems in restoration and conservation as well as

[12] In his new paper to the Third Congress of Engineers and Architects, held in Rome toward the end of 1883, Boito proposed important themes: whether or not restorations should imitate the original architecture, or whether additions should be clearly indicated. Boito, disciple of French school, opted for the second approach wich did not exclude restoration, but establisched the criteria for intervantion according to the individual monument. Jukka Jokilehto, *A History of Architectural Conservation*, 1999, p.201.

[13] Also Luca Beltrami, a pupil of Boito, was influenced by French restoration policy and practice. Beltrami recognized the importance of documentation as a basis for any restoration. For this reason, his approach has been called "*restauro storico*". In practice, however, the difference between "*restauro storico*" and "stylistic restoration" is not always easy to define. Jukka Jokilehto, *A History of Architectural Conservation*, 1999, p. 205.

[14] La Monica, 1974, CXIV.

the aesthetic ones, with above all respect for the ancient, to which, without deforming or replacing it, the new should annex itself to, if necessary.[15] Once again it should be emphasized that almost all scholars of restoration, from Ruskin to date, have raised the question of an adequate *cultural policy*, for its close inherence with the theoretical, technical and practical formulation of restoration. And it is from Vienna, in particular with Max Dvorak (1875-1923) that even more pages dedicated to the socio-cultural aspects and values and duties of protection and restoration rather than technical advices, will be written (in his Catechism of 1916).

In fact Dvorak raises the question more of a cultural *moral* of restoration rather than of a policy of it, he provides a positive theory - practice of restoration and conservation, he accuses the perpetrators of neglect and commoditization of being "outlaws", but as it's pointed out by La Monica, "he does not propose any concrete political and legal measure to reform the deprecated conservative conduct... the romantic-bourgeois nineteenth-century age of the restoration ideals … seem to ogle between the lines of the catechism. Actually, Dvorak's consciousness is that of an enlightened-critical kind, but still, even just in part, a capitalist-bourgeois one ... and failing to reach an integral scientific quality of restoration and protection ... it remains ... an unarmed moralism left to face the more decisive logic of profit".[16]

The Charter of Restoration is encoded during the '30s, the official formulation of the so-called Boito's and Giovannoni's "intermediate" theory. Its principles are illustrated in Rome by the Superior Council for Antiquities and Fine Arts in December 1931 and then transcribed in the *Charter*, which was propitiated by the "Votes of the International Conference for the restoration of monuments" which met in Athens for the International Congress in 1931.[17]

We are at the beginning of the formulation of a precise theoretical foundation, but that in the charter *is too limited to the philological historicism and to a balanced*

[15] G. Giovannoni, in "restauro", *Enciclopedia Italiana,* xxix, 127, identified four types of restoration: 1. restoration by consolidation, 2. restoration by recomposition (anastylosis), 3. restoration by liberation, 4. restoration by completion or renovtion. Giovannoni agreed with Boito that it would be best if restorations were not visible, and that this could be achieved with modern methods and technology. He insisted, however, that modernity schould not be so excessive as to make the building suffer. Jukka Jokilehto, *A History of Architectural Conservation*, 1999, p.222.

[16] La Monica, 1974, p.

[17] Giovannoni presented his principles at the International Congress in Athens in 1931, contributing to the formulation of the Conclusion of the Congress, the so-called "Athens Charter". Returning to Rome, he prepared an Italian charter, *Norme per il restauro dei monumenti*, which was approved by the Direction of Antiquities and Fine Arts in December of the same year, and published officially in January 1932. Jukka Jokilehto, *A History of Architectural Conservation*, 1999, p.222.

common sense that's intermediate between art and history, with uncertainties and contradictions.[18]

It should be remembered that the twentieth century is also the century of the great turning points in physics and in the investigation on the works of art and of historical and archaeological interest, it is the time when physical methods of non-destructive testing are developed and applied, in addition to already established and newly improved techniques of chemical analysis on samples taken from the objects of study. For example, the Scientific Laboratory of the Louvre was officially founded in 1931, by initiative of two Argentinean physicians.

In Great Britain, while scientific trials sponsored by the National Gallery begin during the mid-nineteenth century with the investigation on the effects of urban smog over the conditions of the conservation of works of art, the first scientific laboratories created within an institutional museum are those of the British Museum, dating back to the First World War and to the need to provide for preliminary investigations in order to restore the works that had been evacuated during the conflict.[19]

Going back to the development of the theory of restoration, in Italy Cesare Brandi (1906-1988) gave it a rigorous and organic foundation and a theoretical - scientific accommodation. All the later critics recognized that, knowing that the very same acquired scientificity of restoration was relative and historical and therefore could not ever become absolute, and must keep openness to different awareness of the future, he was able to provide an answer to what restoration is, its purpose, object, method, and boundary and to regulate a procedure.

His theory has been defined an enlightened one that exceeds by far the previous empirical conceptualization and operability referred to restoration. In Brandi's system, restoration is first of all defined, specified and differentiated as the restoration of a work of art, which therefore implies the recognition of the artistry of the object. This acknowledgement qualifies one among many human products as a work of art, for the reason that the individual consciousness that transposes it, qualifies it as a work of art, and in doing so it distinguishes it from other products.

As soon as art is recognized by a single consciousness, it "belongs to the universal consciousness" and therefore poses the categorical imperative as the moral

[18] La Monica, 1974, CXXVIIII.

[19] G. Maino, L. Ciancabilla, *Progettare il restauro Tre secoli di indagini scientifiche sulle opere d'arte*, Firenze 2004, pp. 27-31.

imperative of conservation. The distinctive feature of the artwork is to be recognized as a work of art (aesthetics instance), in its own material physicalness and in its various historicity (historical instance).[20]

Therefore, restoration of a work of art is *the "methodological moment of recognition of the work of art in its physical form and its dual aesthetic and historical polarity, with a view to its transmission to the future".*[21] Hence Brandi clarifies the main principles *"only the matter of a work of art can be restored* [22] *... The restoration must aim at re-establishing the potential unity of the work of art as long as this is possible without committing an artistic or an historical fake, and without erasing all the traces of the passage of the work of art through time".*[23]

The key problem, according to the historical case, is in the conservation or in the removal of additions and renovations. They become a new evidence of human activity and of the transit of the work of art along time, they constitute an alienation of the original identity but, as historical evidences, they have *"the same rights"* to be preserved.

Whereas, from the aesthetic point of view, the addition should be removed. But it is mandatory only when the addition is *"a disrespectful intrusion to the monument, solely due to a coarse usefulness or over ambitious fashion".*

Therefore, before it can be turned into an empirical practice, restoration requires *"a preliminary philological investigation concerning the authenticity of the transmitted image, and a scientific investigation, regarding the consistency and the state of conservation of the matter. Thus restoration, including a preventive one, which should be the most practiced, is a critical process, the act of a critical and scientific*

[20] C. Brandi, *Teoria del restauro*, 1977 Torino (1.ed. 1963), pp. 3-7. This puts in a subordinate position the extra artistic "feature", which other types of restorations aim to.

[21] Idem, p.6.

[22] Ibid, p.9. Regarding the *matter* of the work of art, Brandi makes it clear that this is a mean, not an end, of the image in order to manifest itself, but this must not prevent us from investigating after what constitutes matter, this had been neglected by the idealistic aesthetics; Hegel already had not been able to refrain from referring to " external and given material ", although he had not given any conceptualization of matter regarding the work of art. The matter, as an epiphany of the image, gives then the key to the split between structure and appearance, two functions that generally are not in conflict, but should this happens, it will be sorted out with the predominance of appearance over structure. Brandi names the Parthenon, for which the physical vehicle is not the pentelico marble only, but the atmosphere and the light in which it is located are also part of the matter. Hence the removal of an artwork from the place of origin, should be justified only for the higher reason of conservation.

[23] Ibid, pp. 7-8, p. 35. ... According to this, the preservation of the addition must be considered regular: the removal of it should be exceptional. This is quite the opposite of what the nineteenth-century empiricism advised for restoration.

consciousness of the time when the restoration is produced: only in this it can base its legitimacy".

Cesare Brandi's theory of restoration is historically the point of convergence, of a century-long search ending with the creation of a science of restoration, and with the starting point for subsequent searches. From the 60s onwards, the historicist line marks a further development through a renewal of the scientificity of restoration, meaning that the historical present is scientifically analyzed, in order to propose a proper scientificity (not an absolutist one, since it's also historically determined and relative) in the revival of heuristic and operational tools for restoration and conservation of works of art, of historical centers, any natural and cultural (public) heritage.

Even though most of Brandi's principles are valid even today, the need to revise their application has emerged over the years. A relevant occasion was the flood of 1966, which left restorers and scholars facing new emergencies.

Umberto Baldini's "theory", who was director of the *Opificio delle pietre dure* for many years, rose from this and was published for the first time in 1978.[24]

According to Baldini, in a work of art you can record at least three acts: the first act is the realization by the artist, the second act is the action of time on it, and the third is the one following man actions. When undertaking an act of restoration, maintenance or storage, you should always *"(...) identify the object in its reality as it has reached us and as we can still acquire it through a precise philological analysis".* Through this act *"you gain the knowledge and therefore the consciousness of the object, which is essential for the conservative act"*[25] and you must not edit its value and reality.

Though Baldini adds something new: the task of restoration is not simply to avoid the death of the work, or to keep it alive relegating it to the status of a fragment out of a philological misunderstanding or a false scientism, but it's to recover its *eros,* that is what of its fullness is still salvageable.[26]

[24] U. Baldini, *Teoria del restauro e unità di metodologia,* voll. I-II, Firenze, 1978-1981 (6. ed. Firenze, 1995).
[25] Idem, p. 11.
[26] Martini points out that this concept of Eros summarizes the approach of Florentine restoration of the work of art, which is more engaging and less abstract than Brandi's approach. L. Martini, *Storia e teoria del restauro delle opere d'arte,* 2008, Ghezzano (Pi), p. 276.

- ***The theoretical thinking on restoration in Austria during the twentieth century and the influence of Austrian theory on Stele's view over Monument Conservation***

Riegl's and then Dvorak's thought directly influenced France Stele, a pioneer in the protection of cultural heritage in Slovenia, since he first was a student of Dvorak's in the artistic- historical "school" in Vienna, and later he was the curator of the Office for the Protection of cultural heritage until the fall of the Austro-Hungarian Empire. For this reason, we can state that both institutionally and ideally the formation of the practice of restoration and conservation in Slovenia directly originates from the school of Vienna.[27]

Here we will analyze the thought of the two transalpine theorists, and also some of Dehio's, in order to understand how it develops and takes a particular direction in Stele's theories , which are the basis on which the approach to the protection of cultural heritage of one of the countries of the former Yugoslavia has been based on.

Alois Riegl (1857-1905) is one of the first theorists of restoration who conceptually formulated rules for the protection of monuments and who proposed a first draft in the form of law, a task that Dvorak will continue as his successor to the chair of history of art and to the office responsible for the protection of "cultural heritage" in Vienna.[28]

Riegl's setting is based on two fundamental concepts: the first is designed to broaden the concept of cultural heritage, which is called *"monument"* [29] in German called not only to the work of art, but also to all art objects and all ancient artifacts that contain certain values. Secondly Riegl precisely insists on the construction of a system of

[27] Jelka Pirkovic, *Vestnik, Osnovni pojmi in zasnova spomeniskega varstva v Sloveniji*, Ljubljana 1993, n.XI, pp. 29-30.
Jelka Pirkovic, *Vpliv Avstrijske teorije na steletov spomeniskovarstveni nazor,* Varstvo Spomenikov, Ljubljana 1989, pp. 113-124.

[28] From 1856, the activities of the Central Commisson of Austria were published in a regular newsletter; in 1902, its editorial was confirmed to Alois Riegl. In 1903 he was envited to join the Central Commisson, and the same year was appointed General Conservator. He published regular reports on discussions in the Central Commisson, and was the author of the first systematic analysis of heritage values and of theory of restauration (Riegl, 1903). One of the key issues in Riegl's thinking was *kunstwollen*, in relation to art could be understood in the sense of "tending to art". Riegl see the work of art as the result of a certain purposeful *kunstwollen,* he emphasizes the importance of the artist's creative minds in relation to functional, practical or thecnical considerations. Jukka Jokilehto, *A History of Architectural Conservation*, 1999, p.215.

[29] The greek word for "monument" (deriving from memory, *mneme*) was related to "memorial", while the corresponding Latin word *monumentum (*deriving from *moneo*) encompassed political and moralistic issues, intended to admonish and remind the spectator of the power of the governors, Jukka Jokilehto, *A History of Architectural Conservation*, 1999, p.4.

these "values", which may define various types of monument[30] and may be used to evaluate the object to safeguard.[31]

According to Riegl, these values are those of memory (memorial values: age value, historical value, and Intended memorial value) and the contemporary ones (present-day values: use value, art value, newness and value on art value).[32] You could say that Riegl is almost obsessed to draw up a "classification" of the different types of monuments.[33]

In *Der moderne Denkmalkultus* the concept of "monument" is described: *in the most ancient and original sense we conceive the meaning of monument as a work produced by man to hand down a specific event to the conscience of posterity, and to keep it alive. The monument can be either an artistic or a written (product), depending on whether the event is either passed on in an artistic or in an oral form of art.*[34]

Immediately Riegl realizes that such a definition can only refer to those objects for which the name "monument" has already been used for some time, and therefore he starts to call them *"intentional monuments"*, while referring to all the others he formulates the "package" of *"unintentional, empirical monuments"*, therefore a kind

[30] Idem, p. 12. The historian is especially remembered for his theory of values (the "DenkmalKultus"), to which his battle against the restoration of "style" is connected (theory of Viollet-le-Duc). According to Riegl the restorer must operate with the awareness of the existence of different values, acting through the dialectical confrontation among them. The "historical value" that invites to ensure the readability of the historical document (eventually requiring the reintegration of missing or lost parts); and the "value of antiquity", on the other side, claims a non-intervention (going against the storage itself) to protect the effects caused by the passage of time (and therefore, in favor of the so beloved "patina" by John Ruskin); the "novelty value" follows the instincts of restoration and reconstruction, it is visible in restorations by Viollet-le-Duc, and finally the "value in use" guarantees the survival of the historical document and not of the mere archaeological remains. Thanks to his theoretical contribution, Austria drew the first systematic national law for the protection of monuments.

[31] According to the scholar, the effective protection and conservation of the heritage will depend on these ones.

[32] In this vision contemporary art can therefore contain "potential" works of art, as long as it definitely holds those "real" artistic values.

[33] His theory was criticized by contemporaries for having defined the ultimate aim of conservation as a "religious" enjoyment" of the natural cycle of creation and death, because taken to extreme, this could mean a self abolition of conservation. Jukka Jokilehto, *A History of Architectural Conservation*, 1999, p. 217.

[34] A. Riegl, *Der moderne Denkmalkultus*, sein Wesen und seine Entstehung, Vienna-Leipzing 1903, in Dehio, Georg, Alois Riegl, Marion Wohlleben, and Georg Mörsch. *Konservieren, nicht restaurieren: Streitschriften zur Denkmalpflege um 1900*, Braunschweig: F. Vieweg, 1988, pp. 26-28. As for Riegl, the task of the conservator is to stop the processes of deterioration of the monument, but without totally erasing the passage of time; critics have seen in this many similarities with Ruskin, *Seven lamps of Architecture*, 1847, which is translated into German in 1900 by Paul Clementines. J. Pirkovic, 1993, p. 20, 21.

of *potential* objects for cultural heritage preservation.[35] It seems like Riegl prefers the latter, as he specifies how they are not objective "monuments" but subjective ones and of an arbitrary nature, thus us, as modern subjects, we define them as such.

In fact, he himself calls his system of protection of cultural heritage *a "cult of monuments"*, not yet a scientific discipline but a doctrinal system, which is based on a society of individuals who believe that the cultural heritage is what precisely the doctrine teaches.[36]

Max Dvorak (1875-1923), Riegl's pupil and follower, develops the foundations of conservation as an autonomous discipline, with a focus on the educational and pedagogical aspect of the safeguarding activity. In his *Catechism for the protection of monuments* published by the Central Committee in 1916[37], which is a fundamental text of the culture of conservation, many pages are dedicated to the socio-cultural aspects and duties of protection. This is because Dvorak took on himself the task of developing a moral culture of restoration[38].

It should be underlined that Dvorak together with Riegl were fighting for a "democratization of art", and also for granting to all the works of art the right for conservation without distinction of the period they belonged to.[39] This concept of Hegelian origin was in opposition with both the history of art in a "classical" sense, and with the romantic-patriotic idea of the time; the two also fought against the massacre that at that time was being perpetrated onto the baroque works of art (especially décor ones), that back then were considered far from the "purity" of the previous styles (Gothic - Renaissance)[40].

During the same period of time, George Dehio (1850 - 1932) emphasizes another aspect of restoration that is the importance of monuments for national culture. His words are significant: *"a monument is preserved not because it should be beautiful,*

[35] J. Pirkovic, 1993, p. 13. This distinction was devised by the German positivist historiography of the nineteenth century. Leopold Von Ranke had divided the historical sources in narrative ones (intentional) and documental ones (unintentional) and preferred the latter for their greater objectivity. G. Carbonara, *Avvicinamento al restauro, teoria, storia, monumenti,* Napoli, 1997, p.12.

[36] Idem.

[37] M. Dvorak, *Kathekismus der Denkmalpflege*, Vienna 1915.

[38] Dvorak in his "Catechism" was placed in charge of a popularization and awareness we can say "mass". Pirkovic emphasizes the fact of how Dvorak's precepts, which absolutely are not exhaustive, in Austria have become a real bible for the protection of cultural heritage. J. Pirkovic, 1993, p.17.

[39] Reflecting the modern concept of historicity, Riegl saw each period and each culture with its particular condition and requirements. Riegl connects an artist with his time and culture, where this acted both as receiver as contributor, Jukka Jokilehto, *A History of Architectural Conservation*, 1999, p. 215.

[40] J. Pirkovic, 1993, p. 17.

but for his being part of our nation. When we protect a monument ... we test our piety".[41] In his responses to Dehio (published in 1905)[42], Riegl criticizes him for the fact that the preservation of an asset should not depend on its national affiliation, but on anyone's altruistic motivation.[43]

As for the practical approach to restoration, Dehio's postulate is able to bring together Riegl's and Dvorak's ones, as we can guess from his words: *"Historicism of nineteenth century has, other than his brother, the protection of monuments, a half-brother, the restorative practice. While the first wants to maintain the current status of the monument, restoration aims to reconstruct what has never been ... So our decision is as follows: never restoring, always preserving...We should preserve for as long as possible, and only then we can wonder whether to restore. One must be prepared for this possibility from the start, by collecting all of the possible documentation, measurements, sketches, photographs, ... while still trying not to intervene ... to architects, restoration seems to be more inviting and rewarding. Instead, I see the conservative techniques as the only way to protect (protection of monument)"*.[44]

- ***Stele's Monument Conservation view***

Because Slovene monumental preservation originated in the tradition of the European "monumental" consciousness and is based on its institutionalization in the Austrian and later the Austro-Hungarian Empire, we were forced to consider the comparative materials from the broather European, in particular the German-speaking region. By analysis of Alois Riegl's definition of monumental values and the development of his value system by Max Dvorak, we try to show the correlations and/or differences between the monumental preservation doctrine of the so-called

[41] G. Dehio, *"Denkmalschutz und Denkmalpflege im neuzenten Jahrhundert"*, 1905, riprodotto in *Konservieren, nicht restaurieren*, p. 92.
[42] A. Riegl, *"Neue Strommungen in der Denkmalpflege"*, 1905, riprodotto in *Konservieren, nicht restaurieren*, p. 106-111.
[43] As Pirkovic emphasizes, the dispute between Riegl and Dehio is a reflection of two ideological trends of 900: the first one, a Pan-German one, drew strength from the belief that Austria was part of the great Germanic nation, the second was trying to save and strengthen Austro-Hungarian monarchy, the true home of all nations under the Habsburg crown, and therefore tried to give more weight to international and common values, such as the love of the monuments, as an expression of the culture of the country. J. Pirkovic, 1993, p. 19.
[44] G. Dehio, *"Denkmalschutz und Denkmalpflege im neuzenten Jahrhundert"*, 1905, riprodotto in Konservieren, nicht restaurieren, p. 97-98.

Viennese school and France Stele, who conceived modern monumental preservation in Slovenia.[45]

In an article of 1928, Osnovna nacela Varstva Spomenikov[46] or *"Principles for the Protection of Monuments"*, it is clear that according to Stele the priority concern of the conservator must be to bring the public closer to the most pressing problems of protection, this is just the opposite of what Riegl and Dvorak did, as they first wanted to give a theoretical basis for the conservation and then bring it to the laymen.

In his precepts Stele confirms Dehio's concept of *preserving rather than restoring*, but in reality his vision is much more tolerant of restoration actions. In fact, while according to Riegl, adding the missing parts or in general the retrieval of the original vision affects the value of the monument, according to Stele they are welcome.

In a passage of the article you can read: *"in certain objects, such as buildings, or in certain parts of churches, restoration is allowed, its task is to restore the damaged object to give it an outward image of an acceptable form. However, this renewal must be within the limits for which documentary values of the monument shall not be damaged or deleted .... The new, which must often annex itself to the old, in case of missing parts or in response to different practical requirements, must be first identical to the original, or else it will have to be incorporated in the old so that it can connect to it in a harmonious way".*[47]

With this definition Stele, as Mrs Pirkovic[48] affirms, expresses his interpretation of the restoration as a work of art, not a scientific or philological operation.

Where Riegl, Dehio and Dvorak oppose to architectural restorations, Stele supports them, but in doing this his tribute / reference to the largest Slovenian architect of the time, Joze Plecnik,[49] is clear. Another important article is the "*problem of the protection of monuments in Yugoslavia"*, which is the basis for the first law for the protection of cultural heritage that was not accepted by the state of Yugoslavia between the two world wars. Even here Stele, as Riegl did before, expands the

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[45] J. Pirkovic, *Vpliv Avstijske teorije na Steletov spomeniskovarsveni nazor,* Varstvo Spomenikov, Ljubljana, 1989, pp. 113-124. J. Pirkovic, by analyzing four fondamental monument conservation tretises by Stele, riest to focus the affinities as well as differences between riegl's and Dvorak's doctrine on the one side, and Stele's views on monument conservation idea, its values and main concepts that direct the functioning of monument conservation profession on the other side.

46 F. Stele, *Osnovna nacela varstva spomenikov,*Casopis za zgodovino in narodopisje, 1928, pp. 179-185.

[47] Idem, p. 179.

[48] Current director of the Ministry of Culture heritage in Slovenia.

[49] J. Pirkovic, Vpliv Avstijske teorije na Steletov spomeniskovarsveni nazor, Varstvo Spomenikov, Ljubljana, 1989, p. 114.

concept of monument: *"... the monument is all that on the Earth is no longer alive, meaning that no longer has a function of any use, taste or form of today, or else meaning that one of these aspects is still vital but increasingly endangered".*[50]

Stele also incorporates from Riegl the system of values as memory (memorial values : age value, historical value, and Intended memorial value) but he modifies them into historical documentary value, memorialvalue and mood value (value of "mood", feeling).[51] Besides Stele only sees in the art historian the one who can determine whether an object deserves the name of those values.[52]

In fact, according to the scholar it's precisely the nineteenth century to be the "father" of the protection of monuments, "... *which through its methodicalness and its thorough scientific approach has finally placed the object to safeguard beyond selfish interests, in the consciousness of true values ...*"[53]

According to Stele and opposite to Riegl, for whom the system of protection of cultural heritage is not a scientific discipline but a doctrinal system, this is also a discipline that is based on objective data, because it's interested in real and empirically detectable objects, and makes no distinctions between national monuments as well as anti-national ones.

In order to identify an object as a monument Stele would also use the "magical formula" contained in art history and in the institutionality of the public interest.[54] But in doing this, as Pirkovic reiterates, Stele creates a symbiosis that he does not recognize, while for Riegl is very clear: society itself chooses as monuments those which the profession in charge of this (art historian) defines of public interest.[55]

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[50] F. Stele, *Problem spomeniskega varstva v Jugoslaviji,* Jugoslovenski istorijski casopis, 1935, p. 427.

[51] Stele also divides the monumental values according to their effects, meaning that, if they "turn on", so to speak, a certain feeling in man, then they are called subjective (Stimmung for Riegl), but if they develop a profit they are called objective values. J. Pirkovic, 1989, p. 120.

[52] F. Stele, 1935, p. 432.

[53] Ibid. Reading the article, there is a Stele's mention about a real historical connection that was actually the basis for establishing the protection of monuments: *"... especially in France and in the growing Germany, patriotic reasons were the support for the rapid development of the protection of monuments, because a support to their historical arguments could be seen in the national monuments..."*

[54] Stele, 1935, p. 437.

[55] J. Pirkovic, *Vpliv Avstijske teorije na Steletov spomeniskovarsveni nazor,* Varstvo Spomenikov, Ljubljana, 1989, p. 118. For Pirkovic, 1989, p. 115, one of Stele's characteristic is his interpretation of the highlights of Rieg. For the latter, the artistic value should not be the basis for the assessment of the monuments, as it's too dependent on the "Kunstwollen" that is the subjective contemporary artistic taste (in Der moderne Denkmalkultus, p. 61) while according to Stele these had to be taken into account, althought they are relative, and the remedy for this relativity was history of art. And here it is clear how Stele is an art historian first and then a conservator.

Where Stele's thought moves even more away from the Vienna school is in the essay *"Estetika in dokumentarnost v restavriranju spomenikov"* of 1953.[56] In this paper he argues the thesis that in an intervention on a monument should not only the historical documental instances be considered, but also the aesthetic ones.

In this statement the art historian finds a correspondence in the Cesare Brandi's thought who later on will define the restoration of the work of art as the *"methodological moment of recognition of the work of art in its physical form and in its dual aesthetic and historical polarity, with a view to its transmission to the future"*.[57]

And now Stele's words: *"the preservation of cultural heritage lives and grows in contact with the works of art, between two extremes that can never find a definitive agreement, between aesthetic and (documental) historicity ... "and again" ... the work from which the aesthetic instance has been removed, ... we must find it in its potential, in order to provide it with a new strength ..."*[58]

- ***Development of conservation policies in Slovenia after 1945***

During the post-war period in Slovenia, two trends of thought on cultural heritage preservation develop, primarily thanks to art historians. The first one, with Milan Železnik and Ivan Komelj[59] resumes and continues Stele's theories; the second one with Iva Curk broadens the concept of conservation to other fields, mainly to the archaeological and ethnological one.

Milan Železnik publishes his point of view on the issue of protection and preservation of cultural heritage in two articles, which state that in his practical work

[56]F. Stele, *Estetika in dokumentarnost v restavriranju spomenikov*, Varstvo spomenikov, n.5, 1953-54, pp. 5-12.

[57] C. Brandi, *Teoria del restauro*, 1977 Torino (1.ed. 1963), p. 6.

[58] J. Pirkovic, 1989, p. 122.

The conclusion for Pirkovic is all too obvious: if according to Stele the modern man sees the aesthetic instance in the spontaneity and in the functional authenticity, as well as any conservation work, just as long as it's subtle and discreet, then *"conservation is also a work of art."*

[59] Komelj and Zeleznik are two historians of art who are part of the circle of conservatives in the former Yugoslavia in the 60s and who have started tackling the new challenges posed by rapid urbanization and the development of the territory. The year of 1965 was a pivotal year for this, when the Society of conservators and urban planners organized a symposium in Piran on the protection of the cultural landscape in Slovenia. The reports of the symposium, except Železnik's ones, were not published (the originals are preserved in the archives of the Ministry of Cultural and Natural Heritage of RS). To quote Stele's Report, *"Spomeniško varstvo v Sloveniji do leta 1945",* Referat na simpoziju Varstvo in oblikovanje kulturne pokrajine Slovenije (tiskopis, arhiv Zavoda RS) Piran 1965, str. 5

the conservator, should refer to the appropriate disciplines.[60] An intervention of restoration should include the elimination of all those elements that are not relevant to the object and also all the additions that underline the integrity and the primary image of the monument.

It should be noted that according to Železnik, integrity and primary image, two very different concepts which sometimes are opposed to each other, in this context are the same thing; this is achieved through the act of restoration that should remove all the elements of "noise". Unfortunately, in Slovenia these reflections were interpreted and implemented with the "cleaning" of all those elements that were not part of the earliest or primary phases of a monument.[61]

In the early 60s the historian writes: "... The synthesis of form and content is found in the ideal function ... the functional complexity and the diversity of styles complicates even more the problems of protection".[62] But twenty years later Železnik radically changes his theoretical position, the integrity of the monuments is redefined by he himself as: "... a wholeness, incorruptibility ... in the sense of integration, connection, insertion in the whole".[63] According to the historian, in this way the conservator's task is no longer to bring back the monument to its original state, but to preserve all of its essential elements.[64]

An attitude similar to Stele's aestheticism is also defended by Ivan Komelj, who, if necessary, accepts the complete reconstruction of the monument or of its parts.

In 1960 he wrote: *"monuments' restoration should not be limited to the consolidation of the status quo, but one shall try to re-establish a proper presentation (aesthetics) of the architectural object or monument".*

According to the art historian reconstructing a monument is not at all a necessary act: *"... we are attracted by the illusion of finding a lost monument, but in this way we will not deal with an authentic source anymore (...)From the point of view of the protection of the historical heritage, such an approach, however, not only can it*

[60] M. Zeleznik, *"O prvobitni podobi likovnih spomenikov",* Varstvo Spomenikov, letnik 8, 1960-1961, pp. 48-55.

[61] In Slovenia in some cases the "cleaning" was made in such a literal way, by removing from certain monuments even the "skin", or the plaster with all the original paint overlapped layers. Unfortunately, such an interpretation was endorsed by the idea of that time quite popular especially among architects, that the building part was the most important one and the one to emphasize J. Pirkovic, 1993, p. 40.

[62] Idem, p. 51,52.

[63] M. Zeleznik, *"Varstvo integritete kulturnih spomenikov"*, Varstvo Spomenikov, 1981, pp. 53-54.

[64] The monument is now seen as an open book on its historic journey; all the elements that are overlapped on the work of art testify its "life."

sometimes be desirable but it may also be necessary (...)In such cases, of course, the scientific interests are not the most important ones, but restoration is the inevitable part of a wider process in which the final presentation of the monument has to coordinate the artistic values and the values of safeguard".[65]

For the historian the final presentation of a monument should emphasize its main components and it should illustrate the development of the work of art in its sole and unique artistic experience. Therefore the "presentation" advocated by Komelj simultaneously pursues a threefold purpose: to extract the original artistic image of the monument, to explain its genesis, while maintaining or re-creating an harmonious environment.[66]

Unfortunately Komelj, as emphasized by Pirkovič, did not explain how to achieve in practice this ideal fusion of some incompatible principles.

Undoubtedly, the authenticity of the whole or of some of its parts[67] must be sacrificed in this process. On the authenticity question Komelj writes a specific discussion,[68] and even though the speech mainly deals with historical monuments, especially those of war, it can be transferred to the cultural monuments in general.

As for those monuments in which cultural values are not so visible, Komelj wishes to make them visible with signs, through a particular arrangement of the buildings and the surrounding area: *"In short, for a memorial monument there are needs that require special equipments. This separates them from other structures in places in our consciousness. These structures would be (...) on the wane for some time and sliding into oblivion, unless we do not revive their meaning in history with a particular presentation. In short, here intervention is inevitable. The question is to what extent, the presentation of the monument will be authentic (...) originality or authenticity of the historical territory will be often stifled in the area. However, in a later stage of our perception, the historical site where the monument stands will be identified as such with all the arrangements".*[69]

During the '60s, as confirmed by Pirkovič, there was a wide range of different opinions searching for answers on how to deal with the profession of the conservators, being prepared to face new challenges, but the staff and the

[65] I. Komelj, *"Spomeniško varstvo in umetnostna zgodovina",* Referat na I. simpoziju slovenskih umetnostnih zgodovinarijev v radovljici (tipkopis), 1960, pp. 50-51.
[66] Idem, p. 52.
[67] J. Pirkovic, 1993, p. 41.
[68] I. Komelj, *"Avtentičnost avtentičnih spomenikov",* Varstvo Spomenikov, letnik 27, 1985, pp. 49-52.
[69] Idem, p. 51, 52.

organization of the protection of cultural heritage were conceptually too weak under the pressure of the interests imposed by the chaotic development of time.[70]

In the following years, step by step, the body responsible for the protection of monuments obtained a margin of space in the processes of social planning, and this process has not yet been satisfactorily completed. During the thirties and the forties concerns for the protection of monuments in accordance with the interests of urban planning had already begun with Stele, who was a member and chairman of the building committee of the city of Ljubljana and was directly involved in making the decisions relating to the construction of the capital.

During the 50s and 60s Šumi Nace had a similar role also, while working at the Protection of Monuments as conservator for the territory of the district of the capital, he prepared the first reports with the purpose of urban planning.[71]

In this regard Ivan Sedej is to be remembered[72], who was concerned with the role of architects and within guidelines that the Safeguard for the protection of monuments had to give to architects and designers. Similar to Dehio's positions, Sedej is sure that architects need to resolve a restoration in the same way as the restorers do with paintings and sculptures, thus subordinating their creativity.

For the historian, the designer has to "... address the urban fabric in exactly the same way as a restorer does with paintings, with all *piety* and without any addition".[73] Sedej arose some questions that are still relevant today. One of his arguments is addressed to the Slovenian conservation for its pragmatism and anemia of theoretical

[70] J. Pirkovič, 1993, p. 42.

[71] In an article on the "regeneration" of the historical centers of Slovenia Šumi provides a critical overview of the problems of integration of new interventions into the fabric of the monumental city. N. Šumi, *"O regeneraciji ulice v naših starih mestnih jedrih"*, Arhitekt, 1960, num. 5, pp. 74-76. As Šumi highlighted the dilemmas of protection of monuments in guiding these interventions. In any case, the reconstructions, with modern architectural approaches or in the search for a compromise between the two extremes, never take fully into account "the fundamental principles of historical architecture." Within the new solutions, interventions need to be able to claim the protection of urban values in analogy with the historical memories but they still must achieve "... a proper balance between old and new given the complex composition of our ancient cities, most of which are not stylistically uniform. This suggests that our profession has the task of guiding the architectural and urban planning in the monumental areas, although in the eyes of the designers this has become one of the main limitations of the creative freedom of the architect.

[72] Ivan Sedej (1934-1997), historian and ethnologist, conservator since 1962 at the then Conservative SRS Institute for the Protection of Cultural Heritage.

[73] I. Sedej, *"Resnica in mit v teoriji spomeniškega varstva"*, Varstvo Spomenikov, n. 15, 1970, pp. 7-14.

research, almost exclusively concerned with the problems of presentation, systematically neglecting the work of documentation and research.[74]

Pirkovič remembers that Sedej, in addition to the general issues of the two decades he worked for the then Ministry of cultural assets, also handled the crucial problem of the role of ethnologists in the protection of monuments and the concept of ethnology of monumental heritage.

Unfortunately, this question is still open, waiting to pay more attention to the common grounds between ethnology and conservation. In the field of archaeological conservation Iva Curk is successfully working since 1965 and has published numerous articles on the subject.[75] In recent years what has greatly contributed to improve the protection in territory planning at a national level and to the study of the values of cultural heritage, are the continuous update towards Europe and the ratification by the state of International Charts related to conservation and restoration.[76]

[74] I. Sedej, *"Prispevek h konservatorski teoriji in metodologiji"*, Vestnik Zavoda SR Slovenije za spomeniško varstvo, 4, 1977, pp. 66-107.

[75] I. Curk, "Kako do podatkov za varstvo kultuurne dediščine", Varstvo Spomenikov, n. 29, 1987, pp. 21-25; "O vsebinskih in prostorskih povezavah kulturne dediščine", Varstvo Spomenikov, n. 25, 1983, pp. 151-156; "Določanje prostorskih enot s skupnimi lastnostmi", Varstvo Spomenikov, n. 30, 1988, pp. 31-34.

[76] It is necessary to corroborate the importance of the work carried out by Komelj to systematize the activities of protection from the '60s onwards, and especially in 1975, when for the first time in Yugoslavia an inventory of cultural heritage was performed. Even today we use this concept of typological classification and Komelj contributed to the historical and professional development of conservators through international examples too. At the end of the 70's two works that dealt with this problem were published in Slovenia, one by Peter Fister (P. Fister, O*bnova in varsvto arhitekturne dediščine,* Ljubljana 1979) who is also responsible for the documentation of the architectural heritage and the other Šumi (N. Šumi, *Prenova Ljubljane*, Partizanska knjiga, Ljubljana, 1978) on the restructuring of Ljubljana, where they provide general guidelines and methodologies that can be transferred to the rules on conservation in general.

1.2: The international doctrine

For the last 40 years, since the adoption of the Venice Charter in 1964, there have been numerous conservation guidelines in the form of charters, recommendations, principles, and recommendations that, among others, have carefully defined the scope of heritage and its broader definitions. The scope has broadened considerably from mere concern for individual buildings and sites to include groups of buildings, historical areas, towns, environments, social factors and, lately, intangible heritage. While the scope of heritage has broadened to include environment and intangible values, and has received agreement from the international communities, the finer terminology of 'heritage' has not been streamlined or standardised, and thus no uniformity exists between countries.[77] UNESCO and ICOMOS, like its twin ICOM, is an organization of professionals dedicated to the protection of cultural heritage with the longest tradition also in Slovenia.[78] Through the national committee of the former federal state, Slovenian conservators, who were small in number at time, became ICOMOS members. For several decades, they took the lead in implementing its principles and carrying out practical activities in the international arena. In the 80's the headquarters of the national committee was in Ljubljana for a longer period of time.[79] The Institute for the Protection of Cultural Heritage of Slovenia (IPCHS) is statutorily a defined public service in the field of immovable cultural heritage protection.[80] The connected movable, immaterial and natural heritage also falls under the purview of the institute. In its structure, the institute has two main organizational units, the **Cultural Heritage Service** with 7 regional units throughout the country and the **Conservation Centre**, which consists of organizational unit Restoration Centre and of the unit Centre of Preventive Archaeology.[81] The institute collaborate

[77] http://www.unesco.org/culture.

[78] Slovenian experts participated in drawing up The Venice Charter in 1964. Mrs Štupar Šumi and Mr Marijan Kolarie, then Director of the Institute for the Renovation of the Ljubljana old Town, attended the congress in Venice. ICOMOS was established a year later as the first concrete result of The Venice Charter.

[79] The committee was headed by Dr Iva Mikl Curk, a Slovenian outstanding archaeological conservator. Slovenian conservators, for example Milan Železnik and Dr Curk, published their findings in ICOMOS publications and thus contributed to the development of the doctrine and the international recognition of the profession.

[80] http://www.zvkds.si/en/varstvo-kulturne -dediscine. IPCHS performs following tasks:
(Summarized on the basis of Cultural Heritage Protection Act (CHPA), Off. Gazette RS, no.16/2008, Article 84)

[81] The institute is active in the field of conservation and restoration and employs various specialists: archaeologists, architects, ethnologists, landscape architects, art historians, historians, sculptors, and

with a number of professional and scientific organisations at home and abroad and entertain a lively exchange of professional experiences and thoughts with other related professional services in Europe, in particular with the services of neighbouring states with which we share common geographic, historic and cultural space. From 1948 and onwards, the IPCHS has been publishing the periodical for theory and practice on the care and protection of monuments *Varstvo Spomenikov (Journal for the Protection of Monuments)* with reports from fieldwork in Slovene and, in earlier years, English abstracts.[82] Together with the expert literature brought back by Slovenian representatives from their travels abroad, these served as an important gateway to the world of the most recent conservation findings and enabled the Slovenians to be constantly in touch with world practice.[83]

- ***1931 and 1933 Athens Charters***

The Athens international meeting organised, in 1931, by the International Museum Office, concluded with the creation of the Athens Charters of Conservation on the Safeguarding of the Archaeological and Architectural Heritage.[84] Today there are plenty of such opportunities as there should be but ICOMOS documents remain essential. Although some of these documents are old they are still useful because they record the beginnings of conservation and restoration as a profession and

painters, technical and other professionals. The main task of the institute is the preservation and development of Slovene cultural variety, including its natural and cultural environment as a part of the European and World heritage.

[82] It has been published annually since 1997 in the Slovene and English languages and has had 44 issues published to this day. Translations of some ICOMOS documents, including the Venice and Washington Charters, as well as interesting reports on general assemblies, conferences and other meetings were published in *Varstvo Spomenikov*. Starting at the occasion of the European Heritage Days events in Slovenia, a bilingual (Slovene and English) publication covering various topics of Slovene immovable heritage: *zbirka Dnevi evropske kulturne dediščine/European Heritage Days Series* has been published annually since 1992. The guidebook series *Kulturni in naravni spomeniki Slovenije/Cultural and Natural Monuments of Slovenia* has been published since 1965. The series is a collection of guide books, which by the end of 2009 have already 211 volumes. It was published in Slovene language with only a few of the volumes translated into English/Italian/German. Since 2007 it is regularly published in English translation in a separate book. The *Vestnik/The Herald* treating various topics of heritage protection activities has been occasionally published since 1962. 20 volumes have been issued so far.

[83] Series Conservation Doctrine, Doctrine 1, *ICOMOS International Charters,* Ljubljana, 2003. Magdalena Petric, *Mednarodno pravno varstvo kulturne dediscine,* Vestnik, st. XVII, Lijubljana, 2000. But Jelka Pirkovic, in the text *New legislation and the services for the protection of cultural heritage after 1981,* Umetnostna zgodovina in spomenisko varstvo, Ljubljana 1997, pp. 102-109, analyses the reason for the insufficient legislation regarding heritage protection, because "The profession of monument protection failed to recognise the profound changes that occurred after Slovenian's gaining of independence. Instead of having joined forces and searched for a co-operation and better solutions, the professions active within the field of monument protection have been conflicting with each other, trying to maintain the status quo.

[84] http://www.international.icomos.org/charters.

important since they defined the basic professional principles in conservation which are still in place. In the most recent documents the field of heritage is expanded and new challenges arising from modern life and globalisation are presented.

At the Congress in Athens the following seven main resolutions were made and called "Carta del Restauro":[85]

-International organizations for Restoration on operational and advisory levels are to be established.

-Proposed Restoration projects are to be subjected to knowledgeable criticism to prevent mistakes which will cause loss of character and historical values to the structures.

-Problems of preservation of historic sites are to be solved by legislation at national level for all countries.

-Excavated sites which are not subject to immediate restoration should be reburied for protection.

-Modern techniques and materials may be used in restoration work.

-Historical sites are to be given strict custodial protection.

-Attention should be given to the protection of areas surrounding historic sites.

A chapter is devoted to restoration of monuments, recommending the judicious use of all the resources at the disposal of modern technique. The original text reads:

"The experts...specified that this work of consolidation should whenever possible be concealed in order that the aspect and character of the restored monument may be preserved. They recommended their adoption more particularly in cases where their use makes it possible to avoid the dangers of dismantling and reinstating the portions to be preserved. And when restoration appears to be indispensable, *it recommends that the historic and artistic work of the past should be respected, without excluding the style of ay given period".* Especially in the case of ruins, scrupulous conservation is necessary...and the new materials used for reinstate any original fragments that may be recovered by anastylosis, should in all cases be recognisable.[86]

[85] Adopted at the first International Congress of Architects and Technicians of Historic Monuments, Athens, Greece, 1931.

[86] The Athens Charter strongly project forth the importance to make before any consolidation or partial restoration is undertaken, analysis of the defects and the nature of the decay of monuments. It recognised that each case needed to be treated individually.

- ***1964 The Venice Charter***

The 2nd International Congress of Architects and Technicians of Historic Monuments, which met in Venice from May 25th to 31st 1964, approved the **International Charter for the Conservation and restoration of Monuments and Sites or the Venice Charter.** Consider being still a universally applicable document, it has helped the conservation practises and movements in a positive direction. A document is imbued with strong messages concerning guiding principles in the field of conservation, be it concerning the technical aspects of restoration or the changing scenario of the meaning and associated values regarding historic monuments. The article 9 to 13 highlights the aims of restoration "*to preserve and reveal the aesthetic and historic value of the monument and is based on respect for original material and authentic documents"* and to respect "*the valid contributions of all periods to the building of a monument, since unity of style is not the aim of restoration"*.[87]

- ***1972 UNESCO World Heritage Convention and Operational Guidelines***

To ensure, as far as possible, the proper identification, protection, conservation and presentation of the world's heritage, the Member States of UNESCO adopted the World Heritage Convention in 1972. The idea of creating an international movement for protecting heritage emerged after World War I. The Convention developed from the emerging of two separate movements: the first focusing on the preservation of cultural sites, and the other dealing with the conservation of nature. The most significant feature of the 1972 World Heritage Convention is that it links together in a single document the concepts of nature conservation and the preservation of cultural properties. The Convention recognizes the way in which people interact with nature, and the fundamental need to preserve the balance between the two, fines the kind of natural or cultural sites which can be considered for inscription on the World Heritage List, sets out the duties of States Parties in identifying potential sites and their role in protecting and preserving them. The Article I of the Convention defined *Cultural Heritage* under the following three categories: Monuments, Groups of buildings, Sites.[88]

[87] http://www.icomos.org/charters.

[88] http://www.icomos.org/publications. (See also whc operational guidelines 2008, II d-77v). This was seen as a clear move to ensure that groups of buildings and urban settings were being protected. Cultural heritage was defined by UNESCO in 1972 as Article 1:1:

- ***1975 European Charter of the Architectural Heritage and the Declaration of Amsterdam***

In Europe, the Council of Europe led the world by formulating and adopting regional charters that deal specifically with the situation of European countries; the European Charter of the Architectural Heritage and the Amsterdam Declaration were adopted in Amsterdam in 1975.[89] Both discussed the broadening concept of architectural heritage[90] and the strategy of implementation, the concept of integrated conservation and in particular the roles of authorities in managing architectural heritage. The Amsterdam Declaration 1975 extended the scope of European architectural heritage from the earlier concern only for individual buildings to groups of buildings and their surroundings, old quarters, and areas of towns and villages of historic or cultural interest, also to include historic parks and gardens, the traditional environment and contemporary buildings; the latter -buildings of today- will be the heritage of tomorrow. It also emphasised the need to maintain the continuity of existing social and physical characteristics, both in urban and rural communities and the need to integrate social factors, such as social functions and economic realities, with the policy of architectural heritage and town planning.

- ***1976 UNESCO Recommendation concerning Safeguarding and Contemporary Role of Historic Areas***

The General Conference of the United Nations Educational, Scientific and Cultural Organization, meeting in Nairobi at its nineteenth session, from 26 October to 30 November 1976,[91] adopted the **Recommendation concerning Safeguarding and Contemporary Role of Historic Areas.**

The recommendation defined the **Historic and architectural (including vernacular) areas** as *"groups of buildings, structures and open spaces including*

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

[89] Council of Europe, European Charter of the Architectural Heritage 1975.
[90] *International Journal of Heritage Studies*, 297.
[91] http://portal.unesco.org.

archaeological and paleontological sites, constituting human settlements in an urban or rural environment, the cohesion and value of which, from the archaeological, architectural, prehistoric, historic, aesthetic or socio cultural point of view are recognized. Among these areas, which are very varied in nature, it is possible to distinguish the following in particular: prehistoric sites, historic towns, old urban quarters, villages and hamlets as well as homogeneous monumental groups", and *"it being understood that the latter should as a rule be carefully preserved unchanged."*
It defined the **Environment** as *"the natural or man-made setting which influences the static or dynamic way these areas are perceived or which is directly linked to them in space or by social, economic or cultural ties".*
Safeguarding as defined by the recommendation means *"the identification, protection, conservation, restoration, renovation, maintenance and revitalization of historic or traditional areas and their environment"*.

- ***1982 The Florence Charter***

This prompted the International Committee for Historic Gardens of ICOMOS to formulate an international charter that focused specifically on the conservation of historic gardens around the world. The Florence Charter on Historic Gardens was adopted on the 15 December 1982.[92] The Charter considered historic gardens as being both small and large parks, whether formal or landscaped, and whether or not associated with a building (Article 6). It considered historic gardens as having significance to the public from the historical or artistic point of view and therefore it was possible to classify these as monuments as defined by the ICOMOS statute of 1978. Of course, because gardens are primarily vegetal and subject to decay and regeneration, they were classified as living monuments that required special rules of protection. This has been the concern of the Florence Charter 1982. Similarly, the broadening concern that heritage should also include social factors of historical towns was mentioned in the Amsterdam Declaration in 1975.

- ***1987 Washington Charter***

The ICOMOS Charter for the Conservation of Historic Towns and Urban Areas, commonly known as the Washington Charter, emphasised the need to preserve the

[92] ICOMOS, the Florence Charter 1982.

historic character of towns, including natural and man-made environment and the various functions that the towns have acquired over time. This is in recognition that 'all urban communities are an expression of the diversity of societies throughout history'.

It was adopted by the ICOMOS general assembly in Washington DC, USA in October 1987.[93] A particularly useful document that considers broad principles for the planning and protection of historic urban areas. It considers historic urban areas, large and small, including cities, towns and historic centres or quarters, together with their natural and man- made environments. It believed that these areas, like historical document that constitute the memory of mankind, also embody within themselves the traditional urban culture and the need to protect the same against rapid urbanisation.

- ***Intangible heritage***

By the end of the 20th century, the scope of heritage, in general, was agreed internationally to include *tangible* and *intangible heritage* as well as *environments*. To better inform the international communities, in 1999 UNESCO clarified the scope of tangible values as cultural properties to include monuments, groups of buildings and site[94] and the scope of environments as natural properties;[95] and adopted the Convention for the Safeguarding of the Intangible Cultural Heritage (UNESCO, 2003), which defines 'intangible cultural heritage' as: The practices, representations, expressions, knowledge, skills - as well as the instruments, objects, artefacts and cultural spaces associated therewith - that communities, groups and, in some cases, individuals recognise as part of their cultural heritage.[96] This intangible cultural heritage, transmitted from generation to generation, is constantly recreated by communities and groups in response to their environments, their interaction with nature and their history, and provides them with a sense of identity and continuity, thus promoting respect for cultural diversity and human creativity. This includes oral traditions and expressions, language, performing arts, social practices, rituals, festive events and traditional craftsmanship.[97] Important international documents

[93] http://www.international.icomos.org/charters.
[94] Principles for the Preservation of Historic Timber Buildings, ICOMOS, 1999, Article 23:5.
[95] Idem, Article 43:10.
[96] Convention for the Safeguarding of the Intangible Cultural Heritage, UNESCO, 2003, Article 2:2.
[97] *International Journal of Heritage Studies,* 299.

highlighting this new ideology include: ***New Zealand Charter for the Conservation of Places of Cultural heritage Value*** of 1993, ***Nara Document on Authenticity*** of 1994, ***UNESCO Convention for the Safeguarding of Intangible Cultural Heritage*** of 2003, the ***Vienna Mamorandum*** of 2005, besides many others.

- ***1999 The Burra Charter***

The initiative taken by the Council of Europe to formulate common charters among various European countries was soon followed by other developed countries around the world. In Australia, Australia ICOMOS drafted and adopted the Australian ICOMOS charter for the Conservation of Places of Cultural Significance, commonly known as the Burra Charter of 1979, focusing on three aspects: conservation principles, conservation processes and conservation practice. The scope of heritage generally remained the same as that introduced by the Council of Europe in 1975, but the Burra Charter introduced three new terms:

-*place*, referring to site, area, building or other work, group of buildings or other works together with pertinent contents and surroundings;

-*cultural significance*, referring to aesthetic, historic, scientific or social value;

-*fabric*, meaning all the physical material of the place.

The Burra Charter 1979 was later amended in 1981, 1988 and 1999 to reflect the current concern of heritage and conservation in Australia, including conservation of intangible values. It recognises social and aesthetic values as part of cultural significance, as well as intangible values or intangible cultural heritage referred to by UNESCO as an integral aspect of heritage significance. The importance of intangible values as part of heritage was emphasised by UNESCO when it adopted a convention in 2003 that helped to protect intangible cultural heritage, which was defined as Article 2 (Definitions): practices, representations, expressions, knowledge, skills, instruments, objects, artefacts and cultural spaces associated with communities, groups and individuals.

- ***2000 European Landscape Convention***

The European Landscape Convention - also known as the Florence Convention, - was adopted on 20 October 2000 in Florence and came into force on 1 March 2004

(Council of Europe Treaty Series no. 176). It is open for signature by member states of the Council of Europe and for accession by the European Community and European non-member states promotes the protection, management and planning of European landscapes and organises European co-operation on landscape issues. It is the first international treaty to be exclusively concerned with all dimensions of European landscape. It defined landscape as *"an area perceived by people, whose character is the result of the action and interaction of natural and/or human factors".*[98] As a reflection of European identity and diversity, the landscape is our living natural and cultural heritage, be it ordinary or outstanding, urban or rural, on land or in water.

- ***2003 Icomos Principles for the Preservation and Conservation-Restoration of Wall Paintings***

This document, in its present form, was drafted in Copenhagen from 28th October 28 to 1 November 2002. It was edited and completed in Thessaloniki from 8 to 9 May 2003. The aim of this document is to provide more specific principles for the protection, preservation and the conservation-restoration of wall paintings. The ten articles in the document refer to paintings created on inorganic supports, such as plaster, brick, clay and stone, and do not include paintings executed on organic supports, such as wood, paper and canvas.[99] Architectural surfaces and their finishing layers, with their historical, aesthetic and technical values have to be considered as equally important components of historic monuments.

Following is reported the text of the top five articles with the main features:

Article 1: Protection Policy

Necessary approach to the protection of wall paintings of every culture and religion is to list and make inventories of monuments and sites including wall paintings, even in cases when they are not presently visible. Laws and regulations for the protection of cultural heritage must prohibit the destruction, the degradation or alteration of wall paintings, including their surroundings. Legislation should not only provide for the protection of wall paintings, but also make available resources for research, professional treatment and monitoring, and provide for the appreciation of their tangible and intangible values by society. If interventions are required, these should

[98] http://www.coe.int/convention/landscape.
[99] Even the stuccoes can be included in this type of material.

be carried out with the full knowledge and the consent of the authorities responsible. Legal sanctions should be provided for any violation of such regulations.

Article 2: Investigation

All conservation projects should begin with substantial scholarly investigations. The aim of such investigations is to find out as much as possible about the fabric of the structure and its superimposed layers with their historical, aesthetic and technical dimensions. This should encompass all material and incorporeal values of the painting, including historic alterations, additions and restorations. This calls for an interdisciplinary approach.

The methods of investigation should be as far as possible non-destructive. Special consideration should be given to wall paintings that may be hidden under whitewash, paint layers, plaster, etc. Prerequisites for any conservation program are the scientific investigation of decay mechanisms on macro and micro scale, the material analysis and the diagnosis of the condition.

Article 3: Documentation

In agreement with the Venice Charter, the conservation-restoration of wall paintings must be accompanied by a precise program of documentation in the form of an analytical and critical report, illustrated with drawings, copies, photographs, mapping, etc. The condition of the paintings, the technical and formal features pertaining to the process of the creation and the history of the object must be recorded. Furthermore, every stage of the conservation-restoration, materials and methodology used should be documented. This report should be placed in the archives of a public institution and made available to the interested public. … Traditional methods of written and graphic documentation can be supplemented by digital methods.

Article 4: Preventive Conservation, Maintenance and Site Management

The aim of preventive conservation is to create favourable conditions minimising decay, and to avoid unnecessary remedial treatments, thus prolonging the life span of wall paintings. Appropriate monitoring and the control of the environment are both essential components of preventive conservation. Inappropriate climatic conditions and moisture problems can cause deterioration and biological attacks. Monitoring can detect initial processes of decay of the painting or the supporting structure, thus preventing further damage…Regular maintenance of the building or the structure is the best guarantee for the safeguard of the wall paintings.

Inappropriate or uncontrolled public uses of monuments and sites with wall paintings can lead to their damage. …It is, therefore, important to incorporate into the site management careful planning of access and use, preserving, as far as possible, the authentic tangible and intangible values of the monuments and sites.
Due to various sociological, ideological and economical reasons many wall paintings, often situated in isolated locations, become the victims of vandalism and theft. In these cases, the responsible authorities should take special preventive measures.

Article 5: Conservation-Restoration Treatments

Wall paintings are an integral part of the building or structure. Therefore, their conservation should be considered together with the fabric of the architectural entity and surroundings. Any intervention in the monument must take into account the specific characteristics of wall paintings and the terms of their preservation. All interventions, such as consolidation, cleaning and reintegration, should be kept at a necessary minimal level to avoid any reduction of material and pictorial authenticity. Whenever possible, samples of stratigraphic layers testifying to the history of the paintings should be preserved, preferably in situ. Natural ageing is a testimony to the trace of time and should be respected. Irreversible chemical and physical transformations are to be preserved if their removal is harmful. Previous restorations, additions and over-painting are part of the history of the wall painting. These should be regarded as witnesses of past interpretations and evaluated critically. All methods and materials used in conservation and restoration of wall paintings should take into account the possibility of future treatments. The use of new materials and methods must be based on comprehensive scientific data and positive results of testing in laboratories as well as on sites. However, it must be kept in mind that the long term effects of new materials and methods on wall paintings are unknown and could be harmful. Therefore, the use of traditional materials, if compatible with the components of the painting and the surrounding structure, should be encouraged. The aim of restoration is to improve the legibility of form and content of the wall painting, while respecting the original creation and its history. Aesthetic reintegration contributes to minimising the visibility of damage and should primarily be carried out on non-original material. Retouching and reconstructions should be carried out in a way that is discernible from the original. All additions should be easily removable. Over-painting must be avoided. Uncovering of wall paintings requires the respect of

the historic situation and the evaluation of what might be lost. This operation should be executed only after preliminary investigations of their condition, extent and value, and when this is possible without incurring damage. The newly uncovered paintings should not be exposed to unfavourable conditions. 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 appearances of facades and interiors.

- ***2005 Faro Convention, Council of Europe Framework Convention of on the Value of Cultural Heritage for Society***

Whilst the other international heritage conventions deal with how to protect and conserve cultural goods, the Faro Convention poses the question why and for whom the heritage is transmitted. It is based on the idea that knowledge and use of heritage form part of the citizen's right to participate in cultural life as defined in the Universal Declaration of Human Rights. The text presents heritage both as a resource for human development, the enhancement of cultural diversity and the promotion of intercultural dialogue, and as part of an economic development model based on the principles of sustainable resource use.[100]

[100] http://www.coe.int/t/dg4/cultureheritage/heritage/identities: *"The Framework Convention on the Value of Cultural Heritage for Society (known as "the Faro Convention") will enter into force once it has been ratified by 10 member states. A series of events organised towards the end of 2009 and in 2010 should help disseminate the novel message of the new Convention."* Slovenia ratified in 2003, official publication: Ur. I. RS-MP, st. 19/03.

CHAPTER 2: THE STUCCOES OF THE PRESBYTERY OF THE CHURCH IN KOSTANJEVICA, NOVA GORICA, SLOVENIA

2.1: The monastery of Kostanjevica: historical origins and appearance of the conventual church

- ***First phase of construction***
- ***Second phase of construction***

- ***First phase of construction***

The view of the city of Gorizia which lies between the offshoots of the Collio and Isonzo in the west and those of Karst in the east, where the Vipava valley joins in, is characterized by two building areas that stand out from the landscape: the castle on the center hill and a long monastic system consisting of the Kostanjevica[101] church and the annexed convent that winds along the hill to the north (fig. 1, 2).

1. Façade of the church. *2. View of the monastery. Photos Archivio Diocesano, Gorizia*

During the seventeenth century Kostanjevica became an integrating part of both the geographical and urban context as well as the historical context of a county that was

[101] Kostanjevica in Slovenian means "place of chestnut trees", hence the Italian translation Castagnavizza. L. Mlakar, L. Tavano, *La Castagnevizza*, Palmanova, 2008, p. 4.

inhabited by populations that mainly spoke a Slovenian language while in the center of the town people spoke an idiom of Friuli.[102]

In 1947 the military events of World War II decided the unusual nature of the state border, separating the monastery from its city of origin by a handful of meters. The various legends about the creation of the first sanctuary of Kostanjevica refer to the various pilgrimages that had begun thanks to a miraculous image of the Virgin Mary that had been painted on a table of stone or wood inside a hut, built as a shelter in the middle of the chestnut forest of the hill.

The first confirmed data regarding the existence of a building dates back to 1623, when the owner and legislator of the area, Count Mattia della Torre (Thurn), Lord of Cormons, Vipulzano, Ranziano and Prestau (from the Slovenian Pristava)[103] built a small sacred building called Chapel because of its small size.

At the same time the Count also had to build nearby a "hermitage", that is a small hospice for pilgrims.[104] The chapel became very prestigious over the years, and the place soon became of great interest for the various religious orders of the County of Gorizia.[105]

The historical reconstruction of the complex events preceding the final arrangements that in 1650 awarded Kostanjevica to the Order of the Barefooted Carmelites, would require an examination of the sources and a critical exposition that go beyond the subject of this thesis, hence here it will be limited to retracing in their essential aspects such historical events through the examination of the relevant literature. As it's already been mentioned, Kostanjevica had become the meeting point for the worship of Mary and was a suitable place for the establishment of a monastery. The first attempt of a religious settlement is linked to the figure of a Dominican priest from Naples, father Basilio Pica, a former professor of theology at the University of

[102] Idem, p.3.

[103] Idem, p. 7: "... the toponomo designated the village in the city 'built at the foot of the hill Kostanjevica with its jurisdiction... The hill, as stated by sixth century documents, is called "super goritiam", just like the chapel is indicated as »in fundo seu sylva Turriana ". At the foot of the hill stood the manor house, also known as "castle" of the »Della Torre, a complex built in a semicircle around the comital residence (later restored, was then practically canceled by World War I). The site is still marked by a building that can be seen standing isolated on the right hand side at the beginning of the slope of Chapel Road.

[104] Ibidem, p. 7.

[105] C. Morelli di Schonfeld, *Istoria della Contea di Gorizia in quattro volumi*, 2, Gorizia 1855, pp. 275-276; C. Vascotti, *Storia della Castagnevizza. Contenente eziando la malattia, la morte e il funerale di Carlo X re di Francia, del Conte della Marna figlio primogenito di sua Maesta' cristianissima, e del Duca di Blacas*, Gorizia 1848, p.21; R. M. Cossar, *Storia dell'arte e dell'artigianato in Gorizia*, Pordenone 1948, p. 104.

Prague and then a Superior of the Dominican monastery in Brno. He remained in Gorizia until 1646, when, due to some adversity in his Order, he was forced to move to Farra d'Isonzo.[106]

Fig.3 Drawings of the church. Photo Archivio Diocesano, Gorizia

After his departure, della Torre offered the care of the Chapel to another prominent personality, Bishop Peter Vespa, a Carmelite born in Venice in 1596 who became bishop of the Latin Paphos[107] diocese in 1629. Arriving in Gorizia, he founded a congregation of priests of the Oratory based in Kostanjevica, which he became provost[108] of. The Patriarchal Curia of Udine in 1648 authorized him to consecrate the church, which previously had only been Beatified.[109] Since the Bishop clearly showed to prefer the oratory of St. Filippo Neri, he was reported by his brothers and by request of Emperor Ferdinand III he was forced to leave the place a year later in 1649.[110] In that same year, with the Act of December 28th 1649,

[106] R. M. Cossar, 1948, p. 104. L. Mlakar, L. Tavano, 2008, p. 9: Father Basil Pica ... on his way to Rome in 1643 for the general chapter of his order stopped in Gorizia, where he saw Kostanjevica as an already established place of Marian devotion, he returned in 1645 and from the owner Mattia della Torre he obtained permission to use the hospice next to the chapel, there he withdrew with one of his confreres, to carry on activities of preaching and of Marian mercy for believers and pilgrims. An unidentified party opposed to the Dominicans (G. Morelli), maybe the Jesuits, or maybe also the already established tendency for the Carmelites in Gorizia, forced fr. Pica to leave Kostanjevica (and also the church of the village of San Rocco, that had already been given to the Dominicans) and moved to Farra already from 1646, where the clerc man .... with the substantial support of the co. Richard of Strassoldo, opened a Dominican convent ... until the Josephinian suppression.

[107] He remained Bishop of the diocese on the island of Cyprus until the Turkish conquest in 1573.

[108] He had come to Kostanjevica from Venice, where the Barefooted Carmelites had settled from Rome in 1633. L. Mlakar, L. Tavano, 2008, p. 10: "Bishop Peter Vespa ... had been appointed apostolic administrator of the Latin dioceses of the island by the Holy See and came back to Venice. Perhaps his belonging to the order of Discalced Carmelites (who already had a convent in nearby Udine at the beginning of sixteenth century) leaded him to Gorizia: it must be remembered that in 1633 the central Curia in Rome had approved the settling of a Carmelite foundation in Gorizia, though never realized. Della Torre, "the founder of the church or the chapel of the hermitage of B. V. of Castagnavizza ", probably flattered by the prestige of the Bishop's presence, offered the care of the Chapel to Vespa (September 20th, 1647). The Patriarchal Curia of Udine authorized him (January 16th, 1648) to consecrate the church, just blessed until then. Then he was able to get from the patriarch Mario Gradenigo (May 5th, 1649) the establishment of a congregation of priests of the Oratory, located at Kostanjevica which he became provost of: the project of the oratorywould provide up to 12 priests, with also lay people and some servants, for a pastoral commitment towards a large number of believers that flocked there, in particular of "slave"language.

[109] M. Brecelj, *Frančiškanski samostan Kostanjevica v Novi gorici*, Nova Gorica 1989, p. 4.

[110] L. Mlakar, L. Tavano, 2008, p. 10

Della Torre took the final decision to donate both the land of Kostanjevica and the buildings to the Carmelites,[111] as it's proved even today by the two rectangular slabs of black stone in the center of the parapet of the choir, above the main entrance.[112] The Carmelites were there for a long period, until 1785, during which time the church and the monastery were expanded and modified several times. During the World War I, the church and the sacristy suffered serious injuries, the ceiling of the nave was completely destroyed with all the grouted decorum, which was rebuilt between 1924 and 1929 and can still be seen nowadays. From a detailed analysis of the building structure of the church and from the study of the historical sources, the reconstruction of the various phases of the project of the church appears to have been very complex, as confirmed by Seražin.

According to this expert, the Carmelites demolished the original chapel probably between 1654-1661 and in its place they built a small church.[113] An analysis of some drawings from the sketchbooks of the priest of Gorizia Giovanni Maria Marusig (1641-1712),[114] dated to about 1689, (fig. 3) the church layout of those years is clearly visible: the structure has a rectangular plan that is oriented to north, and it has a nave and an apse that are not displayed in the drawing.[115] The drawing also shows a plateau with a large staircase that connects the ground with the main façade; the latter comes with entrance portal surmounted by a niche with a statue (Madonna's?), two side by side rectangular windows and a thermal window under the sloping roof. Along the west wall, was positioned a porch of the same height of the facade, slightly raised off the ground like a corridor with central door: it was the entrance to the -present- St. Francis of Assisi chapel. Under the roof, on both sides of the door, ran a series of windows that were not aligned with those (two still present) of the upper floor placed between three niches with their respective statues. Above them ran

[111] C. Morelli, 1855, p. 277; R. M. Cossar, 1948, p. 105.

[112] MATTHIAS A TVRRI CLIENS / HVILLIME DICAVIT; / TANDEMQ / AD DIVINUM CVLTVM ET MAIOREM PATRONO SVO / GLORIAM PROMOVENDAM / Adm. RR: PP: / CARMELITARVM / DISCALCEATORVM / IN DIVINIS HIC PER AGENDIS SOLICITTVDINI ET PIETATI / COMMENDAVIT ET DONAVIT / ANNO M. DC. L.

[113] H. Seražin, *Acta historiae artis Slovenica 5*, 2000, p. 69-71, C. Vascotti 1848, p.42; R. M. Cossar, 1948, p. 105.

[114] L. Pillon, *Giovanni Maria Marusig. Un profilo biografico, Gorizia Barocca, Una citta' italiana nell'impero degli Asburgo*, Gorizia 1999, p. 328. Drawing Kostanjevica Church in: *Goritia le chiese, Collegji, Conventi, Cappelle,* published by A. Antonello, *Lo sviluppo urbano e architettonico di Gorizia nel corso del Seicento, Gorizia Barocca, Una citta' italiana nell'impero degli Asburgo*, Gorizia 1999, p. 278-279.

[115] H. Seražin, 2000, p. 69. According to Seražin, the old "chapel" was reused as apse; this could explain the uncommon north orientation of the church.

another series of niches that look like stucco decorations in the form of scrolls. On the east wall stood the church bell tower with a domed roof and the monastic buildings, which do not appear in the drawing for obvious lack of space on the paper. By comparing the drawing with the present building, Seražin shows that to this day what has been preserved of the original seventeenth-century church design are the walls of the nave from east to west-without of course the small side chapels, the wall of the south facade with the thermal window and the wall of the triumphal arch to the north.[116] As reported by Vascotti, on the outer wall of the north side on a stone panel there was the following inscription: JOANNES ANDREAS LARDUCZI / DE BENGIACE: BENACHCEUS Lacu / OPUS. HOC. FECIT YEAR DOMINA / MDCLXI[117] later walled up on the triumphal arch of the chancel and probably destroyed during the First World War. In the past the panel was erroneously referred to the construction of the high altar, but it actually refers to the completion of the church in 1661;[118] the very little information available on the foreman was obtained from that inclusion: *Giovanni Andrea Larduzzi born in Toscolano at Garda Lake.*[119] From Marusig's drawing, Seražin shows that Larduzzi brought on Kostanjevica the more popular model of Lombard church with a single nave with no transept, with shallow chapels with niches or arches, adding to this some typical architectural elements of the lagoon.[120] The only thing that did not meet the standards of the religious Order was the bell tower, probably because it had already been built by Count Thurn in 1623. Otherwise, in Central Europe the order of the Barefooted Carmelites would use as a starting point for the construction scheme of churches, the first abbey of S. Maria della Scala in Rome by architect Ottaviano Mascherini (1606-1624).[121] This had been established according to the set of rules by the General Chapter in 1617, 1620 and 1623, which provided architectural indications for the construction of all Order buildings, so that in the seventeenth and eighteenth century,

[116] Ibid, p.69: in this regard Chiaro Vascotti's hypothesis is cited, according to which another large thermal window was intended to act as a counterpart to that one of the main entrance, in order to bring much more light to the church (C. Vascotti 1848 (13), p. 42), and Seražin assumes that the original chapel was used for the possible construction of an apse.
[117] C. Vascotti 1848 (n.13), p. 42.
[118] H. Seražin, 2000, p.69, 71, nota 62.
[119] C. Vascotti, 1848, p. 42.
[120] Obviously there was a good knowledge of the innovations introduced by architect Andrea Palladio (1508-1580). L. Puppi, *Andrea Palladio*, Munich 1984, p. 335. For Seražin, 2000, p. 72, for the large thermal window of Castagnavizza Larduzzi drew from the one of the Palladian facade of the church Of Zittelle on Giudecca Island in Venice.
[121] M. Brykowska, *Arhitektura karmelitow bosych w XVII-XVIII wieku*, Warszawa 1991, pp. 80, 81.

the most common type of facade of the latter, became the "Roman" type with two floors with volutes.[122] On the contrary, the Barefooted Carmelites of Gorizia, in the construction of the monastery church of Kostanjevica did not hook up with the architectural design of similar churches built in Europe, but they preferred to look at closer regions, Lombardy and Veneto.[123]

- ***Second phase of construction***

The important feature of pilgrimage acquired by the church over the years probably led to the second phase of construction, completed in the eighties and nineties of the seventeenth century. The longitudinal design of the nave was now inappropriate for the function of pilgrimage, because it did not allow to freely circulate in the transition to the big altar of the miraculous image of Our Lady of Mount Carmel built in 1655 (Fig. 5).[124] This problem for the Barefooted Carmelites had become so great that already after 1663, they began the construction of the new sanctuary and sacristy, as documents show that architect Giovanni Battista Spinelli from Palmanova drew a project for it.[125] It was only at the end of the seventeenth century, with the advent of the new prior Friar Maximum of St. Benedict, that the aisle was also expanded. This work probably began around 1688 and was completed by February 14th, 1691, as evidenced by the payment the prior made to the foremen and their assistants (manuals, masons), the stonemasons, the bakers, the stone quarry workers and the blacksmiths.[126]

According to Seražin, the Church of Kostanjevica became almost a quotation from the church of S. Mary of Nazareth of the Discalced Carmelites in Venice, designed by Baldassare Longhena in 1654 (1597-1682). The order required an unusual project of a Greek cross plan with a nave with no transept and three pairs of deep and transient lateral chapels. This style probably influenced the choices of construction of the church of the Barefooted Carmelites in Verona (1666-1750) and Kostanjevica, both belonging to the same monastic province. At that time, in fact the connecting

[122] M. Brykowska, 2000, p. 136-157.
[123] H. Seražin, 2000, p. 71.
[124] O. Hajnšek, *Marijine božje poti,* Celovec 1971, p. 264.
[125] R. M. Cossar, 1948, p. 105-106. Spinelli in 1663 prepares both the design and the estimate of the work.
[126] Idem, p. 106.

passages between chapels and nave with a large altar in the monastic choir became a hallmark in the Venetian churches.[127]

A square presbytery almost the same width of the high altar was added to the nave, then they built two side corridors communicating with each other and with the ambulatory behind the presbytery, coinciding with the altar wall. The design of Kostanjevica differed from others for the choir, which was placed behind the altar but above the sacristy, attached to the right side of the chancel. With this simple solution, the church was enlarged and the side chapels were used as private oratories for the noble families of Gorizia.[128] The only negative aspect was the loss of a source of direct light from the side walls of the nave, which called for more openings on the main facade.

Possibly for this reason the architect created two windows on both sides of the central niche, in line with the large thermal window at the top and with those on the ground floor. Vascotti, in his history of the monastery of Kostanjevica, speaks of a project for the expansion of the church performed by two architects, Giovanni Torre and Giovanni Battista Giani.[129] The latter may have been the local representative of the Gorizia workshop masonry, while Torre is still largely unknown. Seražin reports that among the papers of the Venetian monastery of the Barefooted Carmelites there is a contract with a master mason from Trentino, "della Torre Mistro Giouani", signed on July 8th, 1671 with the duration of one year, to participate with his brother Domenico to the construction of the church of Longhena.[130] The most recent documents that refer to the payment for the work done by the brothers Torre for the church of the Barefooted Carmelite Friars of Venice date back to 1686.[131] The assumption of Seražin[132] that Giovanni Torre, who came to Gorizia, could be identified with the one who worked in Venice, it is not totally unjustified, since the arrival of the maestro in Gorizia coincides with the completion of the work in Venice. And in order to complete the extension work of the Church of Kostanjevica the maestro may have been called by the prior Maximum of St. Benedict, who was "in charge" of the convent at that time.

[127] H. Seražin, 2000, p. 73.
[128] Idem, pp. 73-74.
[129] C. Vascotti, 1948, p. 38.
[130] Archivio Statale di Venezia (ASV), S. Maria di Nazareth, busta 9, mappa 7. Pagamenti fatti per la fabrica della Cappella di n. s. mre Theresa H. n. 3 (p. 6).
[131] ASV, busta 9, mappa 17 bis (p.6).
[132] H. Seražin, 2000, p. 76.

2.2 Stucco decoration of the nave and presbytery in the church of Kostanjevica

- ***Critical fortune and attributive issues***
- ***Reconstruction of the building after the World War I***
- ***Analysis of the style***

- ***Critical fortune and attributive issues***

The modern criticism about the stuccoes begins in the Seventies with the mention of Nace Sumi, in his book about the architecture of the XVII century in Slovenia, of the inside decoration of the Kostanjevica, which, according to him, should be dated some decades later than the building.[133] In 1983 Sergej Vrišer, in his book about baroque sculpture of the Slovene Littoral, recalls the very active workshops of Pacassi in the Gorizia area, which carried out the main altar of Kostanjevica; nevertheless the author does not pay too much attention to the hands of the stuccoes.[134] In 1983 two more works were published: a guide of the church of the monastery by Marijan Brecelj, which features some information from the archives and pictures taken before the war;[135] then a paper by Giuliana Lorenzon Radolli, who compares the stucco decorations with acanthus circular spirals of the intrados of the full-length windows of the choir of Kostanjevica with those of the Torriani chapel of the cathedral of Gradisca d'Isonzo, those of the Verdenberg palace in Gorizia and that of the graveyard church of Versa, in Friuli.[136] Later such a comparison will be justifiably confuted by Jaki, through the stylistic analysis of the joints of the acanthus leaves and of the accompanying rosettes present in Kostanjevica, which are clearly different from those of the above mentioned churches taken into account by Radolli.[137]

Another critical contribution is offered by the church guide written by Luigi Tavano and Liliana Mlakar, where there are published pictures dating back from before the first war[138] where there are evident the details and the richness of the decoration of

[133] N. Šumi, *Arhitektura sedemnajstega stoletja na Slovenskem*, Ljubljana, 1969, pp. 29-32.
[134] S. Vrišer, *Barocno kiparstvo na Primorskem*, Ljubljana, 1983, p. 46.
[135] M. Brecelj, *Franciskanski samostan Kostanjevica v Novi Gorici*, Nova Gorica, 1983.
[136] G. L. Radolli, *Dal duomo gradiscano alcune proposte per identificare l'attività di Giovanni Pacassi nel Friuli Orientale*, "Ce fastu?", n. 61, 1985 pp. 225-246. Judging by some details of the stuccoes of the Kostanjevica, Radolli suggested Giovanni Pacassi as the author – this thesis was later confuted by Jaki.
[137] B. Jaki Mozetič, 1990, Nova Gorica, p. 6.
[138] The pictures are kept at the diocesan historical archives of Gorizia.

the vault of the central nave.[139] In the text there are quoted the words of the art historian Antonio Morassi (Gorizia 1893-Milano 1976), who already at that time seized the artistic value of the already existing ensemble.[140]

Fig. 1, 2 The church after the First World War, the triumphal Arch and Entrance of the Church with the choir. Photos Archivio Diocesano, Gorizia

Fig. 3 Putto in the presbytery. Photo Archivio Diocesano, Gorizia

The stucco decorations found a deeper coverage in the literature issued on Slovene territory, in particular thanks to Barbara Jaki, who seized its value, situating it within the frame of the best European season of the time, especially in comparison with the stuccoes of the chapels of Saint Barbara, Ann and Sebastian in the church of the monastery of Klosterneuburg, near Vienna, carried out by decorators coming from northern Italy, and with the stuccoes of the Schottenkirche in Vienna.[141] According to Jaki, parts of the original stucco

[139] L. Tavano, L. Mlakar*, La Castagnavizza, Guide storiche e artistiche a cura dell'Istituto di storia sociale e religiosa*, Palmanova 2008.

[140] Idem, p. 66. *"tutto l'ambiente è animato da arte viva e fresca, e le decorazioni si profondono nelle pareti e sui soffitti, nelle cappelle laterali e in ogni angolo del grande vano: con grossi intrecci di fogliame, con cartocci bizzarri, con putti svolazzanti e irrequieti, con angeli festanti".* [The whole environment is animated by a lively and fresh art, and the decorations unfold on walls and ceilings, the side chapels and every corner of the vast space: with a big interweavings of feathering, with bizarre cartouches, with fluttering and restless puttos, with jubilant angels].

decoration of the church of Kostanjevica include: the decoration of the balustrade of the choir above the main entrance, the cornice including the later fresco painting[142] on the western wall of the nave, nearly the whole presbytery. Moreover, the scholar identifies the presence of at least three masters, different in their skill and professionalism. The first one should be the author of the puttos of the capitals of the choir and of two more puttos supporting the marble inscription in the presbytery, (Fig. 3) which can be distinguished by a greater expressiveness and credibility in the moulding of their bodies; the second one should be the author of the puttos, the musical angels and the more elaborated tablets both of the presbytery and of the destroyed cornice of the nave; the third one should have been the older one, tied down to the tradition, author of the thick shells, of the hermae and probably of the whole decoration of the architectural structure of the choir and of the great cornice of the western wall of the nave.[143]

- ***Reconstruction of the building after the World War I***

"La guerra scoppiata ai 23 maggio 1915 fra l'Italia e l'Austria si è sferrata specialmente nel settore di Gorizia, e il colle di Castagnavizza per la sua posizione, fu un punto preso di mira. Chiesa e convento furono centro di continue cannonate, così che vennero ridotti ambedue in uno stato miserando, squarciati muri, abbattute pareti, scoperchiatti i tetti. Le piogge poi compirono il resto delle rovine. Anche la tenuta del convento fu tutta sconvolta e per le granate e per piazzare i cannoni e per le trincee e per lo scavo dei passaggi militari".[144]

These are the words written in the Chronicle of the convent of Castagnavizza, Gorizia, 1924-1947, which describe the situation after the war, witnessed by pictures of the time. Pictures dating back to the period preceding the destruction are kept as

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[141] B. Jaki Mosetič, Nova Gorica, 1990. According to Barbara Jaki, the stuccoes of Kostanjevica should be related to the works of some decorators who were already active in the Twenties and Thirties of the Seventeenth century in Vienna and Praga. B. Jaki Mosetič, *L'arte dello stucco in Slovenia nel seicento e settecento,* L'arte dello stucco in Friuli nei secoli XVII-XVIII, Atti del convegno, Udine, 2000, p. 219.

[142] Fresco carried out by Rigo in 1884.

[143] B. Jaki Mosetic, 1990, Nova Gorica, p.9.

[144] Cronaca del convento di Castagnavizza, Gorizia, 1924-1947 Archivio del Convento di Kostanjevica, 1915, p. 4. "The war broken out on the 23rd of May 1915 between Italy and Austria has been thrown particularly in the area of Gorizia, and the hill of Castagnavizza, because of its position, has been treated as a target. Church and convent have been the target of continuous cannon shots, so that both were reduced to a pitiful state, the walls torn up, the rooftops lost. Then the rains completed the rest of the ruination. Also the resistance of the convent has been devastated, for the grenades, for placing the cannons, for the trenches and for digging the military passageways"

well, thanks to them it is possible to gain an insight about the original richness of the ensemble and compare the style of the stuccoes with the work of other hands.[145] The decorative display of the vault was animated with figures in alto-relievo and in the round stuccoes, with close decorative patterns which were articulated along the cornice of the frescos. The whole composition was probably realized with white stucco which presumably presented gold foil heightening on some parts, on the clothes or on the decorative elements of the cornices.[146] (Fig. 4, 5)

Fig. 4 Decoration of the vault of the central nave, before the I W.W.
Photo Archivio Diocesano, Gorizia

Large-sized sculptures –nowadays just Ann and Joachim in the presbytery and the Madonna in the central niche of the outer façade are preserved– were sitting on the solid stringcourse in the central nave, large angels with a rich drape were holding the

[145] The historic pictures are published here with permission of the Archivio diocesano of Gorizia.
[146] Gold foil heightenings are present in the presbytery as well. See sample OMK2, analysis results at p. 62-65 of the thesis.

cartouches and the coats of arms of the arcades which were leading to the lateral chapels.

Fig. 5 Particular of the vault
Photo Archivio Diocesano, Gorizia

After the war, the reconstruction works of the church and of the convent began in 1924, once obtained the approval from the Municipality of Gorizia and the Office for the fine arts of Trieste.[147] At the end of 1925 a big part of the structural works were completed, and in 1929 the ceiling of the church was decorated again with stuccoes by a firm which back then should have had a very good reputation, coming from Rome and run by architect Grossi, who at the time was also working on the new stuccoes for the Cathedral of Gorizia.[148] Comparing the pictures taken briefly after the war with the current situation, it is possible to distinguish between the parts which have been restored, those which have been totally rebuilt and most of those that at the time they unfortunately chose to "sacrifice" for the reconstruction. The latter include all the decorations and the sculptures of angels on the sides of the two big side arcades, those on the stringcourse cornice between walls and vault, the decorative frieze below it, the capitals of the pilasters, the surrounding cartouches and acanthus spiral decorations and those on the intrados of the windows of the side

[147] *Cronaca del convento di Castagnavizza, Gorizia, 1924-1947,* Archivio del Convento di Kostanjevica, 1924, p. 6.
[148] Idem, 1929, p. 20.

walls. Out of all this decoration, only the stuccoes of the intrados of the windows of the upper floor of the main façade, the choir and the cornice which encloses the fresco painting on the western wall of the nave and the presbytery remained untouched. (Fig. 6, 7)

Fig. 6, 7 After the war, decoration between walls and vault

Photos Archivio Diocesano, Gorizia

All the new stuccoes of the vault were carried out in 1929,[149] including the capitals of the pilasters. In fact the photographic sources show clearly the workmanship of the original capitals, made up exclusively of acanthus leaves, whereas now bellied children are moulded in a reliable and convincing way, making us assume the presence of a very skilled hand or of excellent models. (Fig. 8, 9)

According to archival sources, the restoration of the stuccoes dates back to the year 1938; the works were carried out by the painter Giovanni Pertot from Gorizia, art teacher in the "industrial schools" of the town: *"venne levato tutto l'intonaco sovrapposto dopo la grande guerra e ricomparvero le figure antiche; queste vennero rinfrescate e completate nelle parti in cui mancavano. Gli stucchi vennero puliti e listati anche con qualche filetto d'oro. Spesa £ 2,300".*[150]

The work has been carried out in quite a rough way, particularly in the remaking of the sculptures, whereas the repainting turns out to be complete in all of the sectors decorated with frescoes. The parts surely untouched by the restorations are the shapes laid along the central cornice of the presbytery.[151]

Fig. 8 The original capital

Fig. 9 The new capital

Photos Archivio Diocesano, Gorizia

[149] *Cronaca del convento di Castagnavizza, Gorizia, 1924-1947,* Archivio del Convento di Kostanjevica, 1924, p. 20. See also fig. 10, drawing, Archivio del Convento di Kostanjevica, dated 1929.

[150] Cronaca del convento di Castagnavizza, Gorizia, 1924-1947 Archivio del Convento di Kostanjevica, 1924, p. 49. "All the plaster superimposed after the Great War has been stripped off, and the ancient shapes reappeared; these have been freshened up and completed in those parts where they were missing. The stuccoes have been cleaned and even edged with some golden thread. Expense £ 2,300".

[151] B. Jaki Mozetic, *Stukatura v samostanski cerkvi na Kostanjevici v Novi Gorici,* Goriski letnik, 1990, Nova Gorica, p. 7.

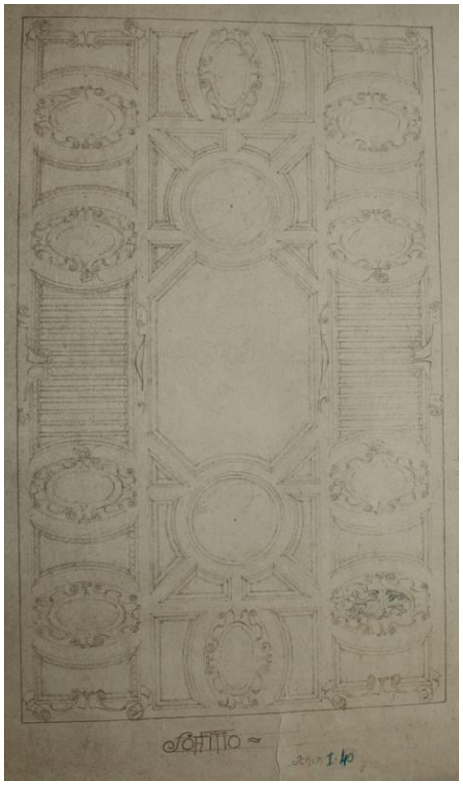

Fig. 10 Project of the vault of 1929

Fig. 11 The new vault of the nave

Photos Archivio Diocesano, Gorizia

Fig. 12 The nave of today

Photos Archivio Diocesano, Gorizia

- ***Analysis of the style***

Presbytery

The presbytery, which has been spared from the bombings, presents itself as small-sized, as defined in the second half of the Seventeenth century; it includes a rich stucco decoration where angels, puttos, Marian symbols, tablets with cornices, images of saints follow one another; each of them are repeated specularly on both sides with respect for an ideal central line, and aim to develop the main theme of the glory of Mary. Starting our reading with the side walls, at the floor level round openings lead off the lateral corridors; on both of their sides there are shell niches with cartouche cornices above them. Both openings are surmounted by a stucco panel with two puttos supporting a central cornice containing a black marble slab with a Latin inscription.

Fig. 13, 14 Walls of the presbytery with marble inscriptions. Photos M. Bensa

The tunnel vault is elaborate, a big skylight opens in the middle dividing in two symmetrical parts the composition; the cornice of the skylight is supported on both sides by a couple of bigger angels and by two smaller ones (Fig. 15). Lower down, specularly, two little vaults with cartouches and niches containing the sculptures in the round of Saint Ann on one side and Joachim on the other, both with two rectangles on each side, frescoed with angelic motifs. All of the figures carry the evident marks of a rough restoration, so that the stylistic features of the stucco decorator have been blurred and the original reliefs covered with plaster coatings. We can suppose that the four musical angels sitting at the corners of the central cornice, as well as those of the skylight, have not been the object of too much repairing. (Fig. 16)

Fig. 15 The vault of the presbytery. Photos Archivio Diocesano, Gorizia

Fig.16 Musical angel sitting at the corners of the central cornice

Photos Archivio Diocesano, Gorizia

Nave

The stucco decoration of the balustrade of the choir, of the intradoses of the two windows above the main entrance, and of the cornice containing the later fresco painting on the western wall, are, as already reported, the sole elements of the nave which have been preserved after the war and the following "restoration" works.

The choir is divided by three arcades, supported by quadrangular columns made of stone of Istria with capitals in stucco, above them decorative elements with

mascarons from which garlands with ribbons come unknotted, with vegetal elements running along the arcades. Above a little dentil stringcourse cornice, four dancing puttos support the central rectangular inscription and two oval cartouches with hermae. (fig 17-19)



Fig 17, 18, 19 The balustrade of the choir, particulars

Photos Archivio Diocesano, Gorizia

The cornice on the western wall presents a similar decoration, in particular if we compare the hermae and the volutes of the tablets. (Fig. 20)

The intradoses of the windows present a more elaborate decoration with large circular spirals of acanthus leaves with phytomorphic figures. (Fig. 21, 22) The decorators display in each of the three cases their knowledge of a rich repertoire of motifs taken from prints which have their roots in the ancient grotesques,[152] even if the moulded puttos of the choir imply their "overcoming".



Fig. 20 The cornice on the western wall *Fig. 21, 22 Decoration of the intradoses of the windows. Photos M. Bensa*

[152] A characteristic of the stuccoes of the early Seicento, it's the common background coming from the Florentine Mannerism, which is brought to Northern Italy, to Lombardy to be exact, by Primaticcio.

Judging from the analysis carried out so far, one can appreciate how high was the workmanship of all the stucco decoration of the church, which presupposes the presence of very experienced artists. Surely it was a great workshop, able to carry out the very rich decoration of the inner spaces.

Tracing the story of the construction of the church with the aim of spotting the chronology of the different stucco parts, the sole certain element we get is that the stuccoes of the presbytery should be dated back to after 1663, when the Carmelites started examining the projects of the new presbytery and sacristy.[153] In fact, the documents show that an intensive renewal began immediately after the order took possession of the monastery, but only at the end of the XVII century, with the accession of the new prior, Brother Massimo di San Benedetto, the extension of the church was completed. The works began around 1668 and were completed before the 14th of February 1691;[154] but otherwise we have no documental evidence which could witness if such works included the building of a new inner vault as well or if it remained the same as before, and if it was already decorated. The most reliable hypothesis so far is that most of the stucco decorations of the nave, in particular those of the vault, of the choir and of the great cornice on the western wall, existed already in the first church of 1661, and that only afterwards those of the presbytery, of the newly constructed arcades and of the decorations of the full-length windows of the nave have been carried out, also because these were part of the constructive works of the new church ended in 1691. Also the features of the stucco figures of the vault, recognizable from the old pictures, are indeed of a different technique than those of the arcades, the latter being more similar to those of the presbytery. In addition, the original composition of the vault of the nave, static and contained by large cornices, belongs to a figurative language more tied down to the Mannerism, whereas that of the presbytery and of the side arcades of the nave reveals a more baroque expressiveness. A more extensive research into the archival sources could bring out more elements in order to reconstruct more precisely the decorative history of the church, which after our analysis still raises a lot of questions.

It's certain that the authors of the decoration were itinerant craftsmen-artists coming from the lake region in northern Italy and moving from town to town creating works after both civil and ecclesiastical commissions. For instance, the activity of

[153] Cossar, 1948, pp. 105-106. In 1663 Spinelli prepares both the project and estimate of the works.
[154] Idem, p. 106. We can deduce it from the payment made by the prior to the master masons.

Lombards in Gorizia is already documented in 1658, when the master mason Felice Lorenzo Maiti from Bergamo is directing the works of reconstruction of the church of San Francesco.[155] However, because of the continuous displacement of the stucco workshops, it is not easy to identify any determinate personality. They were working in groups, often under the guidance of an architect, who generally prepared the decoration scheme. Common denominator of their work is the decorative repertoire of the late Mannerism and of the early Baroque reproduced in pattern books: we can find their traces in the mascarons on the balustrade of the choir, in the fruit-shaped festoons, in the distinct development of the volutes. The whole vocabulary of shapes is a standard and does not depart from the other major workshops active during the middle of the XVII century.

Fig 23 The vault of the presbytery. Photo Archivio Diocesano, Gorizia.

[155] Idem, p. 10.

Fig. 24 The cornice of the skylight supported on both sides by a couple of bigger angels and by two smaller ones, particular. Photo Archivio Diocesano, Gorizia

2.3 Stylistic analogies with the stucco decorations present in Northern Italy, derivation of the models

The development of the art of stucco during the XVII century in the Slovene territory does not reflect the actual borders. One of the characteristics of the technique of the stucco decoration is in fact its internationalization, being a style spread by the work of the stucco decorators who were travelling across the whole Europe as seasonal workers in search for commissions. The church saw this decorative technique as quite a suitable instrument for glorifying the faith at the time of the Counter-Reformation. Most of the workmen were coming from Northern Italy, in particular from Ticino and Val d'Intelvi.

The first group of stucco decorators from the Austrian regions, which contributed to the interventions of the stucco masters in Slovenia, grew up during the second half of the Seventeenth century in Vienna and Graz,[156] but as much important it is the development of the stucco cornices brought to Friuli and subsequently to Ljubljana and to the Slovene territory from stucco decorators following Giulio Quaglio, also from Val d'Intelvi[157]. In particular, we have to mention Lorenzo Retti and Giambattista Bareglio, who delimited with a rich ornamentation of stucco cornices the scenes frescoed by Quaglio in palaces and churches of Udine, mostly of mythological or historical subject.[158]

The decorative schemes of the early baroque draw on the Renaissance motifs of the coffered ceilings, as well as the Mannerist repertoire with puttos, cartouches, gadroon friezes, dentils, pearls and leaves, and have such a distribution which underlines the features of the construction.

Zambrano sums up the characteristics of this type of framing attested in Veneto starting from the middle of the XVI century through two basic schemes: the simpler articulation of interlaced flat volutes, here and there interrupted by heads of puttos, mascarons, rosettes and decorated with superimposed discs; whereas the more monumental variant proposed until the XVIII century is distinguished by the

[156] B. Jaki Mosetic, *L'arte dello stucco in Slovenia nel seicento e settecento,* in *L'arte dello stucco in Friuli nei secoli XVII-XVIII*, Atti del convegno, Udine, 2000.
[157] G. Bergamini, *Giulio Quaglio,* Udine 1994.
[158] Many stucco decorators from Como and Ticino worked in Friuli between the Seventeenth and Eighteenth century, among them the famous Abbondio Stazio. G. Bergamini, S. Tavano, *Storia dell'arte nel Friuli Venezia Giulia*, Udine 1984.

presence of side caryatids and enormous garlands;[159] its origin is traced back to the creation of a new decorative system elaborated by the innovations of Giulio Romano in Mantova and above all by those of Rosso and of Primaticcio in Fontainebleau, spread by engravings and tapestries which became "a veritable spelling-book of the new language". Antony Blunt explained this new system of ornamental decoration, consisting in a series of cartouches, straight lines, rectangles and shields carved or moulded in bas-relief along the gallery of Francis I, confirming however that already in Venice, about the middle of the XVII century, a new shape of shield, used to adorn tombs and sculptures, had been elaborated and transformed into a kind of parchment with rolled up borders. The scholar claims that it was through a group of engravers called to join the artistic centre of Fontainebleau that the new devising circulated in the European artistic circles, used as a model by artists of all the Italian states, with a higher frequency and more original results in Veneto.[160] The origins of the new methods of decoration can be found as well in the hoods ("nappe") of the fireplaces, like the series of stuccoes in the building of San Marcuola: towering over the structure of the lower part or "nappa", they are placed within a backing frame of volutes and fake curtains, winged puttos on the background and the by now known decorative repertoire of cornices, cartouches, mascarons and festoons in the shape of encarpus, where originally the gold surely underlined and enhanced the reliefs.[161]

A style in-between, before the evolution of the mature baroque, it is well represented by the stuccoes of the nave of the conventual church of Kostanjevica, decorated probably from 1655 to 1661, whereas those of the presbytery were carried out later. From the pictures of the interior, Jaki compares these stuccoes with the decorations of the side chapels of Klosterneuburg near Vienna, and of the Schottenkirche in

[159] P. Zambrano, *Nascita e sviluppo della cornice del primo rinascimento alle soglie del barocco,* in *La cornice italiana dal Rinascimento al Neoclassico,* Milano 1992, pp. 46-51.

[160] A. Blunt, *I rapporti tra le decorazioni degli edifici del Veneto e quella della scuola di Fontainebleau*, Bollettino del centro internazionale di studi di architettura Andrea Palladio, X, pp. 268-278. There are mentioned the most authoritative engravers Antonio Fantuzzi and Renè Boyvin, Blunt, p. 155. Recommended are the reproductions of the prints of J. Mignon, in S. Béguin, *La scuola di Fontainebleau: Storie antiche e moderne,* in *La bottega dell'artista tra Medioevo e Rinascimento,* Milano, 1998, pp. 276-290.

[161] G. Mariacher, *Epigoni di Alessandro Vittoria negli stucchi di palazzo Vendramin Calergi a Venezia*, in "Arte Veneta", XXXII, 1978, pp. 288-292.

Vienna, carried out about the Forties and Fifties, to which contributed Giovanni Battista Carlone.[162]

About that we have to take a step back and look at the stuccoes of the parish of Pellizzano,[163] which we can date between the Thirties and the Forties of the same century. The author is still unknown, even if, as observed by Colbacchini, one can recognize the hand of a stucco decorator which, if on the one hand seems to draw close to the lesson of Casella from Ticino, whose stamp appears visible in the liveliness of the poses and in the vital charge of the angels, on the other hand, "in the treatment of the groins, with the trefoil fields, in the lightness of the ribs, in the use of particular mascarons, recalling the Lombard female head cloths of the Seventeenth century", shows his approach to the manner of the artists from Intelvi working in Austria and in Hungary about the Forties and the Fifties in the decoration of Klosterneuburg, near Vienna.[164]

To the stuccoes of Pellizzano and in particular to the manners of Casella we can compare also those of the chapel of San Simonino in the church of San Pietro in Trento, probably datable at the middle of the Seventeenth century, which frame the paintings of Pietro Ricchi of 1669. Here, even more than in Pellizzano, "the connections with the manners of Casella are convincing, in the thick curly hair of the angels, in the liveliness of the poses, in the dramatic tension of some expressions, as well as in other motifs as the half figures whose hips are made up by acanthus leaves, which are encircling some panels in the lower part of the chapel".[165]

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[162] B. Jaki Mosetic, 2000, p. 219. Here the scholar refuses the comparisons with the Cathedral of Gorizia and with the supposed work of the stucco decorator Lorenzo Maiti and of Giovanni Pacassi as well, and dates back even later, about 1700, the decorations of the presbytery.

[163] R. Colbacchini, *Maestranze lombardo-ticinesi in Val di Sole: la Cappella Canacci nella chiesa parrocchiale della Natività di Maria a Pellizzano*, in *Passaggi a nord-est: gli stuccatori dei laghi lombardi tra arte, tecnica e restauro*, Atti del convegno di studi, Trento, 2009. The Canacci double chapel in the parish Church of Natività di Maria a Pellizzano (Val di Sole) has been theme of critical discussion. If the presence of stucco masters from Lombard Lakes, documented in the village since the XVth century (starting with the Retti family from Laino, Valle Intelvi) has been finally accepted, on the other hand there is no common vision about the different cultural influences in the figurative language of the masters: the heritage of Casella from Carona, the one of Colomba from Arogno and the model by Giovanni Battista Barberini from Laino. Even the chronology is uncertain: embellished at the beginning of XVII century (wood sculptures dated around 1626), the chapel was probably decorated with stucco works between the fifth and seventh decade of the XVII century (various different critical opinions included in this range).

[164] R. Colbacchini, *La chiesa della Natività di Maria a Pellizzano,* Trento, 1999, p. 121.

[165] A. Malferrati, *Prime indagini sulla decorazione a stucco in trentino*, in *L'arte dello stucco in Friuli nei secoli XVII-XVIII*, Atti del convegno, Udine, 2000, p. 169-170. To this end the author takes into account the Casella's stuccoes for the parish of Castione di Sondrio (1624), where one can find a similar decorative motif: "One must see the beautiful cherub in one of the side chapels, which, for the prominence assumed in the decoration, does not differ too much from an identical motif included in

From the analysis of the criticism examined, everything lead us to the consider as the authors of the stuccoes of the vault of Kostanjevica hands similar to the manners of the artists from Ticino, in particular to those of the Retti family, but also to those near to Casella. Considered the mobility that characterized the stucco decorators from Lombardy and the many requests they had to handle, which moreover were coming from regions very distant one to the other, one could suppose that some stucco decorators from Val d'Intelvi working in Vienna at the end of the first half of the century were later called to Gorizia to decorate the church of the Carmelites, which in the meantime became an important place of pilgrimage.

These Lombard families, with workshops rigidly organized as family owned businesses related to each other, having settled in the most disparate provinces of the time, brought a remarkable contribution to the decorative production in central Europe and to its diffusion between the XVII and XVIII century, merging, with a mutual contribution and exchange of stylistic features and figurative repertoires, the Lombard tradition with the latest trends of the baroque.[166]

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one of the groins of the corridor of the chapel in Trento. Not to mention the angels with suffering expressions, sitting on a large volute, flanking the frames of the paintings of the dome; as a further comparison one should examine Casella's chapel of Saint Francis in the church of San Carlo in Chiuro. Therefore we think we can conclude that the author of the chapel of San Simonino is an artist from Ticino near to the manners of Casella.

[166] D. R. Fiorino, G. Frullio, *Lo stato dell'arte per la conoscenza: l'impiego dello stucco in Sardegna in periodo barocco*, Atti del Convegno di Studi Bressanone, *Lo stucco, Cultura, Tecnologia, Conoscenza*, Padova, 2001, p. 38. Exponents of these families, as the Quallios, the Rettis, the Corbellinis, were active also in Sardinia starting at least with the Eighties of the Seventeenth century.

2.4 The technique of the stucco. Brief overview of the building techniques and physical characterization of the used materials

- ***The treatises and the sources***
- ***Building techniques***

- ***The treatises and the sources***

The term *stucco* means a filler blend of lime mixed with marble dust, mixed in various proportions. This mixture was used since ancient times as topcoat for architectural works, in imitation of marble, but also to shape decorative reliefs.

In Roman times, the mixture used to make the stucco was the same used for the plaster. Between the simple plastering and filling the difference was only in the different proportions of the materials, or in their particular qualities, as both Plinio and Vitruvio require.[167]

The treatises and the sources about the art of stucco, in particular about the *stucco forte*, have been well examined by Francesco Amendolagine, who takes into consideration the technical information included in Cennini's handbook,[168] in Alberti's treatise, in Francesco di Giorgio Martini's treatise about civil and military architecture, up to the peak represented by Jacopo Tatti, known as Sansovino, who theoretically defines with precision the technique of the Roman *stucco forte,* where the presence of gypsum is completely absent (on the contrary, it was widely used in the stucco of the Gothic constructions.[169] As stressed by the scholar, the term stucco does not appear either in Cennini's or in Alberti's treatise of 1452, where everything related to the stucco can be recovered through the term plaster.[170] The term "stucco", its technique and the characteristic materials of the mixture are mentioned for the

[167] Vitruvio, *De Architectura*, Libro VII, cap. III. Venezia, G. Antonelli ed. 1854. Sources regarding the application of stucco are rather scarce, we find a brief mention in Vitruvio. Therefore the study of ancient technique is based on the examination of extant works, and their comparison with the requirements given by the sources.

[168] Cennini registers the materials and the mixtures as slaked lime, marble powder, sand.

[169] F. Amendolagine, *Le tecniche ed i materiali dello stucco forte nelle fonti dal Rinascimento alla Modernità*, Atti del Convegno di Studi Bressanone, Lo stucco, Cultura, Tecnologia, Conoscenza, Padova, 2001, pp. 1-17. In Cennini's handbook (C. Cennini, *Il libro dell'arte*,Vicenza, 1993) probably written in the early Fifteenth century, Amendolagine notes that materials and compounds related to stucco, such as lime, marble dust and sand, are an integral part in the yard where Cennini himself operates.

[170] F. Amendolagine, 2001, pp. 1-3: Alberti describes the qualities of an optimal coating of plaster using terms like shine marble, marble, white marble, and indicate the materials more suitable for this purpose. In his text, the best plaster consists of several overlapping layers, the last of which must have a very small thickness.

first time in Francesco di Giorgio Martini's Treatise of civil and military architecture.[171]

A turning point in the relationship between technique and theory of stucco is carried out with the school of Raphael in Rome, where for the first time the preparation of stucco is treated with a scientific theory. In fact, artists from all over Italy who had to do with the technique of stucco meet in this school.[172]

So, at the end of the fifteenth century the rediscovery of classical antiquity leads to a complete recovery of the technique of stucco and this will continue throughout the sixteenth century. Distinction must be made in the application of lime stucco and marble dust as architectural facing,[173] and the use of the same material in the production of a more or less projecting decorative relief.[174]

- ***Building techniques***

From studies on ancient texts, it emerged that the perfect classic finish, according to Vitruvio, was composed of six layers.[175] This procedure was used to provide a strong bonding between the layers and a perfectly smooth surface; the top layer was further soaked in limewater, in order to fill all the holes and make the surface smoother. For the realization of the major projections there were used bricks protruding from the wall, fixed with nails and metal pins.[176] The preparatory drawing was usually engraved on the fresh mix; in rare cases it was found the use of red earth to define the boundary lines. The operation was done by hand, and in some cases it was observed that part of the bottom of the stucco was then scratched at the ground to be

[171] Idem, pp 4-5: As confirmed by Amendolagine, *"Martini was called to Milan from Gian Galeazzo Sforza in 1490, where it operated along with Bramante and Leonardo in the yard of the cathedral (1487-90). Milan became a point of aggregation for a small number of artists but with a theoretical and technical knowledge at the highest level. Today we can say that the strong revival of the stucco forte did not develop in Bramante's and Leo X's Rome, but it takes place in the capital of Lombardy between 1480 and 1499 by Gian Galeazzo Sforza, twenty years before."*

[172] Ibidem, pp. 5-7.

[173] L.B. Alberti, *De Re Aedificatoria*, Libro III cap. I Firenze 1485. Ed. Il Polifilo, Milano 1966.

[174] G. Vasari, *Vite*, 4.ed. Milanesi 1981. Vol. VI, *Vita di Giovanni da Udine*, pp. 164-165. The most important source for the technique of stucco relief is Giorgio Vasari, who attributed to Bramante the realization of the perfect filler, and to Giovanni da Udine the rediscovery of the true recipe of the Roman stucco; the constituent materials are the same architectural coatings, the factor that differentiates them is the processing technique.

[175] L. Famiglietti, C. S. Santoro, *La tecnica dello stucco attraverso le fonti: tecnica d'esecuzione e caratterizzazione chimico-fisica dei materiali costitutivi*, in Atti del Convegno di Studi Bressanone, *Lo stucco, Cultura, Tecnologia, Conoscenza*, Padova, 2001, p. 20: *»the first three have a decreasing particle size reaching a thickness of 18 mm, while the other three were made of real stucco, whose particle size is thinner, and had the thickness of respectively 8, 4 and 2 mm".*

[176] A mixture of arriccio with plant fibers has been found in order to make it lighter, also in cases where the relief is not very prominent.

undertaken. The definition of the modeling was done with the help of cues of all shapes (curved, flat, sharp, loop) usually wood, but many recordings with sharp edges attest the use of metal tools.[177]

For the execution of ornaments, masks, rosettes, the mixture was pressed into special wooden forms (matrices) previously dusted with powdered marble, which were then applied on the plaster still wet, and then beaten to make them adhere well.[178]

Slaked lime is used as a binder, and both Plinio and Vitruvio show great attention to its quality.[179] In some cases it was revealed the presence of gypsum, but Vitruvio does not recommend this material, but extensive use of gypsum was made during the middle Ages and the end of the seventeenth century.

Like inert it is used material such as volcanic pozzolana, whose hydraulic properties were already known; the pozzolana is sometimes mixed with sand. In the surface layers it is used travertine marble powder. On many monuments of the Republican era it is used as topcoat a mixture of lime with a well-selected inert calcite crystals in the form of tabular rhombohedral (calcite spatica).

This is probably the material referred to when Vitruvius speaks of "glebae ut salis mica perlucidas"; in fact calcite spatica results as a more compact binder for stucco finish.[180] The choice of the material is closely linked to the availability in different geographical areas as well as to the specific needs of the work.[181]

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[177] L. Famiglietti, C. S. Santoro, 2001, pp. 19-20. Often in very low relief, characterized by a very rapid technique, the modeling was done almost exclusively with the engraving on the mixture still wet. For the final polishing, as well as spatulas and trowels used to smooth the funds, soft brushes were used, the surface was continuously bathed with milk of lime to saturate the porosity of the material and make the surface more similar to marble.

[178] The forms used by the Romans for many frames are all taken from the sixteenth century: the classic frame of eggs and pink, bucranium, the rose, the flower, the volute, the meander, the acanthus leaf.

[179] Both recommended only the lime. Plinio, *De Naturalis Historia*, Libro XXXVI "Il marmo", Roma, 1946.

[180] Judging from both the existing sources dating back to Roman times, it is evident a greater knowledge of the materials compared with the age of the Renaissance. L. Famiglietti, C. Scioscia Santoro, *Il fregio in stucco della sala della biblioteca in Castel Sant'Angelo-La tecnica dello stucco del Cinquecento*, Tesina di diploma I.C.R., 1997.

[181] L. Famiglietti, C. S. Santoro*, La tecnica dello stucco atrraverso le fonti: tecnica d'esecuzione e caratterizzazione chimico-fisica dei materiali costitutivi*, Atti del Convegno di Studi Bressanone, Lo stucco, Cultura, Tecnologia, Conoscenza, Padova, 2001, p. 22: Generally, for the "arriccio", especially in the Roman-Campanian areas, it is used red or grey pozzolana: because of its hydraulic properties, it makes the mixture resistant in damp. Sometimes in the mixture there can also be sand, or coal, or tuff in order to make it lighter. Still in the preparatory layers there can be found small percentages of clay materials, which due to their particular structure give hydraulic properties to the mortar; the most commonly used is the earthenware (cocciopesto).

The use of organic materials for the finishing coat is witnessed primarily by sixteenth-century sources, which can be found in several recipes.[182] It is likely that the use of certain organic substances had the function of delaying or accelerating the drying time, while others, such as wax, oil and soap could help polish the surface and make it waterproof.[183]

Additives have been already used in the stucco in ancient times, natural protein substances were of great importance. The addition of natural organic materials to lime or gypsum based stucco mixture in order to improve its application and durability is displayed in some ancient technical reports.[184]

[182] L.-Brook Sickels, *Organic additives in mortars,* Edimburg Architecture Research, Vol. 8, 1981, pp. 7-20. It appears that even the ancient Cretan manufacturers use substances such as gum Arabic, animal glue, hippopotamus blood, fig milk mixed with egg yolk, while egg white, casein and keratin and other additives seem to have been used to make plaster mortars in ancient Egypt. The Cretans were perhaps the first to use the gypsum for various decorative elements, but almost simultaneously in Egypt, the stucco mortars were used in funerary architecture in the form of sarcophagi that reproduced the shape of the dead, and relief decorations of homes and tombs. It 's probably from Egypt that this technique has spread from there throughout the Aegean and the Mediterranean basin.

[183]M. Fogliata, M. L. Sartor, *L'arte dello stucco a Venezia,* 1995, Roma, p. 141. As per the oral tradition of the old Venetian stucco decorators, in the mixture it can be added raw linseed oil (in a proportion of 1:150) in order to obtain a greater cohesion, more elasticity, a lengthening of the carbonation times and the greatest reduction in the number of microfractures.

[184] C. Arcolao, A. dal Bo, *L'influenza delle sostanze proteiche naturali su alcune proprietà degli stucchi,* Atti del Convegno di Studi Bressanone, Lo stucco, Cultura, Tecnologia, Conoscenza, Padova, 2001, p. 527-538.

CHAPTER 3: PRESENTATION OF THE RESTORATION PROJECT OF THE STUCCOES IN THE PRESBYTERY OF THE CHURCH IN KOSTANJEVICA, NOVA GORICA, SLOVENIA

3.1: Chemical analysis carried out on the samples of two champions from the stuccoes of the presbytery in the church of Kostanjevica

Report of investigation of the samples[185]

OBJECT-NAME:	Wall paintings and stucco		
OBJECT - TITLE:	Church of the Annunciation in Kostanjevica		
PLACE:	Nova Gorica	**EŠD: Id. n.**	3851
TECHNIQUE:	wall paintings and stucco		
AVTHOR:	Probably workshop Retti		
DATING:	17. century	**STYLISTIC DEFINITION:**	baroque
OWNER / MANAGER:	Franciscan Monastery of Kostanjevica, Nova Gorica		
NOTE and SUBJECT: Sample maintained in the archives of RC.			
INFORMATION AND INVESTIGATION (materials and method)			
current	Not		
current	Not		

SAMPLE TAKEN - DATE:	Marta Bensa, 03. 11. 2010
CARRIER OF SCIENCE D EPARTMENT RC	Ivo Nemec
PROJECT LEADER RC or CUSTOMER:	Marta Bensa

[185] Made from Zavod za Varstvo Kulturne Dediščine Slovenije

Restavratorski center, Ljubljana, January 2011.

The report's authors: Ivo Nemec, kons.-rest. svetnik Sonja Fister, kons.-rest. sodelavka

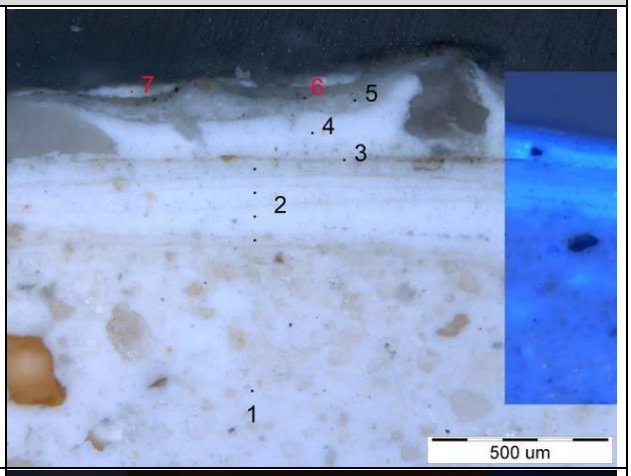
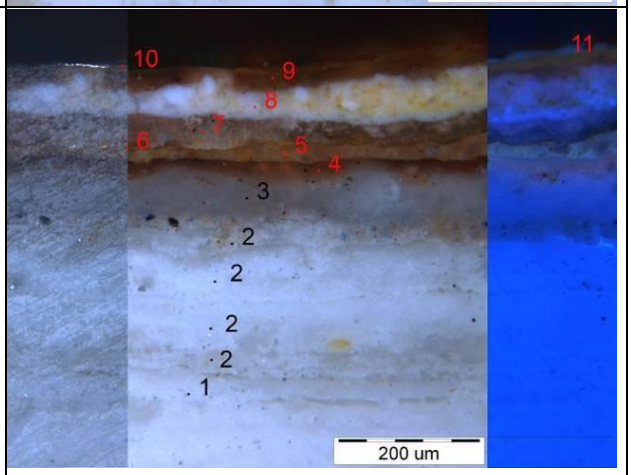
Vodja NO RC *kons.-rest. svetnik Ivo Nemec, udik*

Location of the samples

Figure 1: niche in the presbytery
Sample OMK1, OMK2

Sample preparation and investigation methods

Optical microscopy in visible light (VIS) in bright field with crossed (bfx) and parallel (bf =) polarizer and analyzer and the ultraviolet (UVF) light. Infrared spectroscopy with Fourier transformation (FTIR) can be coupled with a microscope (Mic) with the needle taken from individual layers of particles. Always with a needle is a common contamination with neighbouring layers, which should be considered in the interpretation.

CODE, TYPE OF THE SAMPLE	LOCATION OF THE SAMPLE	STRATIGRAPHY - (COMPOSITION)	
OMK 1 layers of the colour	presbytery, last niche on the left side, in the right part of the shell	7- white ($CaCO_3$+$CaSO_4 2H_2O$) 6- grey ($CaCO_3$+$CaSO_4 2H_2O$) 5- light gray 4- limewash plaster 3- patina 2- limewash 1- body mortar (binder: CaCO3 + silicate - kaolin?)	
OMK 2 layers of the colour	Presbytery, last niche on the left side, decoration above arch of the niche, presence of original gold finish.	11- patina 10-gilding 9 –oil gilding (drying oil + natural resin-mixtion) 8 - preparation 7 - preparation 6 - gilding 5 - shellac (shellac + CaCO3) 4 - isolation 3 - preparation of gray (cellulose) 2 - limewashes 1 -body mortar	

NOTE: colours of the photos may deviate from the actual due to setting. The same colours or the same layers that are recorded in various techniques can be very different in the photos. Photos are generally whole, or just their parts carefully processed with software tools, so it still reflects reality.

Comment

Sample OMK 1: In the binder of stucco mortar are carbonated lime and alumina-silicates components - cement. The gypsum is not in the binder, we have determined it in the outer, younger layers. Most likely this is due to sulphating - this is a process of transformation of carbonated lime in gypsum through the sulphur dioxide from the air.

Sample OMK 2: In the sample there are two gildings. In the younger, the gold is deposited on the oil gilding, in the older on the layer of shellac. Cellulose in the layer 3 is probably due to contamination.

Soluble salts

Method: The sample is weighed (ca 1 g of crushed mortar, ca 0,050 g. of clean salt). The sample is immersed in the ca 100g of distilled water and left 1-2 hours to solubilize, while stirring periodically. It is allowed to sink and the clear solution is decanted. If necessary, it is filtered. The concentration of ions is determined by a rapid test or otherwise.
The result is entered in the appropriate column:

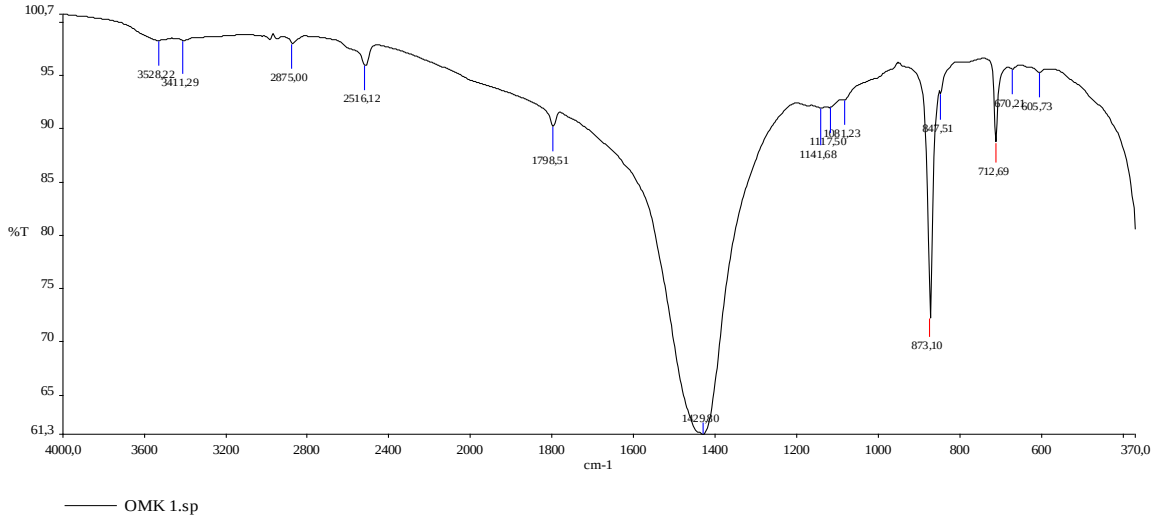
Ser. No.	Sample name	Sample weight	Water weight	pH	Conductivity µS/cm	Cl^-	$SO4^{2-}$
		g	g			mg/L	mg/L
1	OMK 1	0,81	130,5	5	238,1	9	110

$NO3^-$	$CO3^{2-}$ alkality	Ca^{2+}	Mg^{2+}	Na^+	K^+
mg/L	mmol/L	mg/L	mg/L	mg/L	mg/L
10	0,5	25	100	-3050,73	-8824,28

The semi quantitative analyzes of soluble salt have been carried out only in the sample OMK1, due to the sample size. Calcium, magnesium, sulphate, chloride and nitrates ions are present. The percentage of polluting salts (sulphates, chlorides and nitrates) is relatively low. As seen from the FTIR analyses, calcium sulphate is present, probably originating from the process of sulphatization of calcium carbonate, due to air pollution. If environmental factors remain stable, this process does not signify a high risk currently, due to the rather small quantity of gypsum present in the sample.
From the analyzes is emerged the presence of magnesium, which would suggest the use of dolomites limestone as aggregate, but their presence is not been confirmed by FTIR. Possible reason for this is relatively small amount of the dolomite in the sample.

FTIR

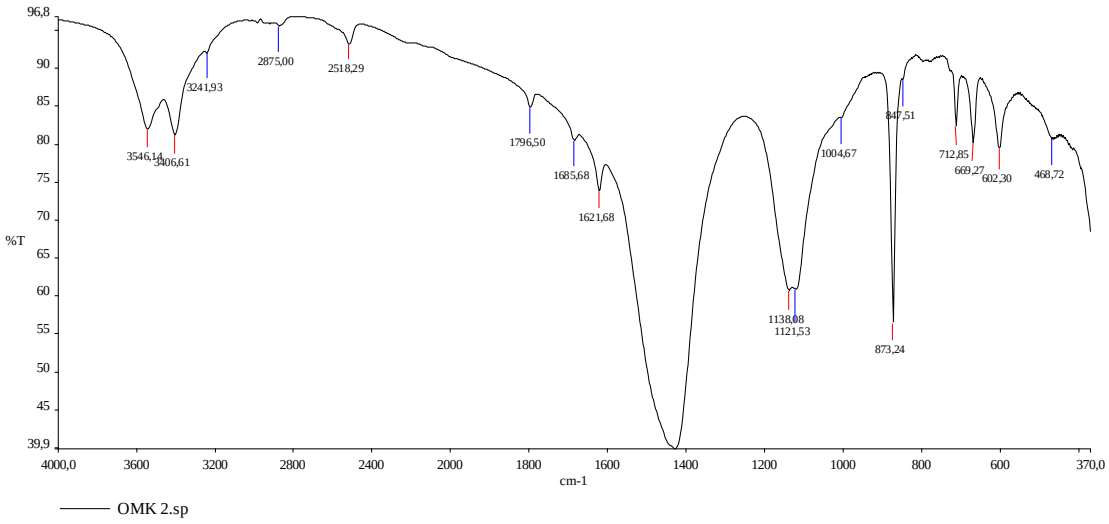
OMK 1



In the present sample calcite was identified, which indicated by absorption bands, at 1798 cm^{-1}, 1429 cm^{-1}, 873 cm^{-1} and 712 cm^{-1}. Band at 1081 cm^{-1} is characteristic of quartz. The presence of gypsum ($CaSO_4 \cdot 2H_2O$) is shown absorption bands at 1141 cm^{-1}, 1117 cm^{-1}, 670 cm^{-1} and 605 cm^{-1}.

FTIR

OMK 2



In the present sample calcite is present, which is indicated by absorption bands at 1796 cm^{-1}, 1429 cm^{-1}, 873 cm^{-1} and 712 cm^{-1}. The presence of gypsum is shown by absorption bands at 1138 cm^{-1}, 1121 cm^{-1}, 670 cm^{-1} and 602 cm^{-1}.

Bands at 1685 cm^{-1} and 1621 cm^{-1} are characteristic of OH vibrations in gypsum.
The qualitative analyses were performed with the FTIR spectrometer on both samples, OMK1and OMK2. Presence of calcium was confirmed, as evident by the presence of typical absorption bands (1429 ...) present in the samples.
The spectrum 1081 is typical of quartz, which signifies the presence of silicates, as fillers.
In both samples absorption bands typical of gesso are present. The amount of it is higher in the sample OMK2, taken in the most outside part of the niche.

3.2: Preparatory studies of & proposal for restoration works on the presbytery of Kostanjevica

- ***The state of preservation: Conclusions from Visual Examination***
- ***Technique & Condition of the Stuccoes and Past Interventions***
- ***Investigation-analyses***
- ***Approaches to solutions: proposal for restoration works***
- ***Summary table of the restoration***

- ***The state of preservation: Conclusions from Visual Examination***

Specifically, this section is an analysis of the correspondence between the original wall paintings and the polychromes of the stucco. The paintings and the stucco-frame are heavily disturbed by cracks; the joint areas show various past repairs; a clear identification of the various polychromes and their connections could not be achieved yet. The state of preservation is poor. The rough and sandy surface is brittle and shows flaking; the plaster is soft and weak.

From first glance, the decorations in the stucco and the frescos in the presbytery of the church of Kostanjevica make it clear that a series of obstacles will hamper the conservation efforts. The stucco shows different types of surface and structural degradation, specifically on the protruding portions and statues. Mouldings of scrolls and floral swags are found on the flat wall surfaces. On the walls there are cracks that seem to deeply affect the layers of plaster on the protruding portions of sculptures and reliefs, and we note the formation of large areas of deformation and detachment. There are widespread fractures both detached and static throughout, while other furnishings and embellishments seem to be completely lost. Over time, the plaster, frescoes and stucco surfaces most likely absorbed, to various degrees, the moisture and humidity from water in the atmosphere and random dust deposits in the environment. The results are saline deposits that have caused the detachment of numerous microscopic pieces of material.

There is obvious evidence of prior restoration efforts, including: discoloration, with distinctive marks and yellow stains, which are attributable to the absorbed residues of ancient protectants; wire anchors on the structurally-unsound supporting walls (specifically where there are large statues jutting out); fillings and reconstructions on

missing parts, which were probably made with a mixture of plaster and marble dust; layers of paint (whitewashes) put on over time throughout all of the presbytery, which has flattened the original shape of the walls. Furthermore, the entire surface of the presbytery appears darkened and heavy with a thick layer of dust, which has adhered to all floors and protruding decorations, increasing the volume of the space.

All of the above factors have impeded the readability of the works of art, and have compromised the space's aesthetics and its desired physical, ideological and aesthetic intent, which is meant to be expressed in its unique colour and composition.

With visual examination, there emerges a situation not excessively worrisome from a conservative point of view, though the aesthetic view is compromised. It's noted that the phenomenon's which in the past caused degradation, at the present reveal conclusive. Actually, at the present time the humidity is not a threat to the works. The project will therefore seek to eliminate the observed causes of damage and alterations, while considering the possibility that some potential causes of prior degradation- such as soluble salts, which will eventually be proven by the analysis of samples- may also reactivate. For other forms of alteration, such as the dull reconstructions created during prior restorations, we will operate according to aesthetic judgment, ensuring complete legibility as the main goal.

- ***Technique & Condition of the Stuccoes and Past Interventions***

During the restorations of the stucco of the church of Kostanjevica there will be the occasion to examine knowledgably plastic products and therefore a more accurate observation of technique. From the first visual analysis it can be deduced that the statues were made with a central body of mortar, formed from lime and inert materials composed of large grains, such as sand and small amounts of earthenware. Most likely, wooden elements or structures made of wire covered with fabric were inserted, with the function of structural reinforcement, or as support frames for arms, legs and protruding elements. This starting point, more or less reinforced by said elements, was covered by layers of stucco compounded from inert fillers with a thinner particle size (lime, chalk, marble dust). The fine surface finish was clearly applied with a spatula (there are evident signs of pressure left by the instrument) and polished before final carbonation.

Obvious signs of previous restorations, such as fillings and reconstruction of missing parts, seem to have been most likely made with a mixture of plaster and marble dust.

The mixture was very coarse, and compromised the correct and over-all desired aesthetic.

Dull layers were added over time on most of the stucco in the presbytery, especially those on the lower end, which flattened the original shape of the walls.

- ***Investigation-analyses***

From stratigraphic analyzes so far carried out on two samples (OMK1, OMK2) taken from the shell and on the golden relief in the right niche on the left-hand wall (while looking at the alter) of the presbytery, there is a clearly visible drafting of at least four layers of paste, originating as the basis of "body mortar".

The stratigraphy of the initial sampling of OMK1, taken on the shell moulded in stucco in the right alcove as mentioned above, presents a coarse base formed by calcium carbonate, silicates and perhaps kaolin, on which there is a dividing line or "closure" the last 200 um from the first layer of finish, perhaps due to the modelling / compaction done by the tools of the plasterer during the draft. The following four layers of stucco consist predominantly of calcium carbonate, bordered from each other by slightly darker lines, while the last line is more pronounced and yellowish, probably attributable to the film.

Then follows a coarser layer, attributable to one or more layers of lime from a previous maintenance-restoration effort: large dimensions are grey are evident, formed from calcium carbonate and calcium sulphate.

The second sampling of OMK2 was carried out near an ornament located in the same niche, which we hypothesized would prove to have an original gold finish, as it has indeed been revealed: stratigraphy always has a basis of "body mortar" above which are followed by five layers of finishing, delimited by lines slightly darker, the last of which revealed the presence of cellulose. There follows a darker isolation area and a mixture of shellac and calcium carbonate above which has been applied a surely original gold leaf. The next layers can be attributed to a previous restoration effort with different layers composed of drying oils and a natural resin (not specified) and the gold leaf. Analysis seems to indicate that the golden parts from the seventeenth century have been faithfully replicated during prior restorations.

Before beginning the restoration, other physicochemical characterisation must be carried out by means of Fourier Transform Infrared (FTIR) Spectroscopy, Scanning

Electron Microscopy with Energy Dispersive X-rays Spectroscopy (SEM-EDX), especially on the sculptures, which could not be achieved without scaffolding.

- ***Approaches to solutions: proposal for restoration works***

1) Preliminary Operations

After performing the preliminary removal of abundant, inconsistent deposits with soft brushes and electric vacuum cleaners, with the exception of the portions of the surface that are concerned with the salt deposits, the following will be arranged:

2) Extraction of the soluble salts with light preconsolidation of the stucco

Eventually the soluble salts present have to be proven in the analyses. For testing the possibilities of salt extraction on the surface, a cellulose poultice containing water will be applied for 24 hours and conductivity measurements will be repeated. It will then reflect the need to perform desalination with poultices of cellulose pulp in demineralised water in a to-be-determined amount of time, especially in the presence of nitrates, or to exclude it to avoid the risk to dislodging and weakening a situation that has become stabilized over the years. In areas with fragmented material and crumbling, the operation of a slight pre-consolidation will be performed, taking care not to lose the material. In order to reassemble the slightly disrupted material, a sheet of Japanese paper is dampened with a solution composed of deionised water, acetone and alcohol in equal parts. The sheet of Japanese paper acts as a wall of brake-support for the particles of the detached materials, and then, once wet, solubilises the salt formations and reinforces the support surfaces. In doing so, the crumbled material is suspended.

3) Cleaning of dirty surface

The surface should be buffered with distilled water after aspiration of all the powder, and then washed by means of natural sponges with a saturated solution of ammonium carbonate, always in distilled water. The operation must be performed with care taken to reach every recess and underneath the plastic forms. The water must be changed frequently to avoid staining the porous material of the stucco; thus it will perform in two steps, from top to bottom.

The operation will also contribute to the extraction of soluble salts that may still be present.

In the case of residue spots of coherent or deposited wax, you can achieve localized wraps of water saturated with ammonium carbonate in paper pulp and sepiolite, or

wraps of deionised water with a surfactant (Tween 20 ®) or acceptable solvents, always supported from paper pulp and / or sepiolite. The removal of packs is followed by the mechanical cleaning of waste solutes with toothbrushes and with deionised water, followed by immediate drying of the surfaces with sponges.

4) Cleaning of limewash

The removal the layers of dullness will be carried out on the stratigraphic unit previously chosen. The over-lying lime wash layers are often hard and well connected, so the uncovering is very difficult. The goal is to find a method which minimizes damage when removing the lime wash, while at the same time maintaining time considerations during the procedure. A test will have to be performed for the removal of the lime wash layers:

Mechanical uncovering tests will be carried out with all tools and equipment that are known to be successful: various scalpels (stiff scalpels with differently-shaped blades, ceramic blades, etc.), rotating instruments (brushes of various materials, micro-grinding heads, eraser heads, etc.), pneumatic needles (with varying frequencies and points), ultrasonic needles or ultrasound (with different points, air- and water-cooled), micro-sand blaster. But in most cases, even the most exact; the purely mechanical uncovering will not achieve a sufficiently low-damage removal of the firmly-attached lime wash on the original stucco plaster.[186]

In a subsequent procedure, we will make an attempt to sufficiently weaken the stubborn bond as well as its variety of active ingredients so that one might attempt a subsequent mechanical removal with softer instruments.

The use of wooden tools with different tips, boxwood or bamboo is only permissible on the areas of easily-removable dullness, while the use of a scalpel will be limited to areas of slightly more adhered dullness, and can be used only to thin, not to engrave.

For the task of micro detachment the use of upholstery hammers is permitted; held at a point of equilibrium so that the force exerted on the artefacts is minimal. Compresses of distilled water in cellulose pulp will be used to ease the process.

The method of chemical cleaning the more dull, bland and tough concretions will be attempted with cationic ion exchange resins.[187] The resins – a weaker and a stronger

[186] Expecially after a microscopically-control.

[187] M. Matteini, *Consolidanti e protettivi di natura minerale in uso sui manufatti di interesse artistico ed archeologico costituiti da materiali porosi*, Atti del convegno Trento 25-27 febbraio 1999, Trento, 2000, pp. 60-66.

type as needed- are mixed with deionised water and applied with a paintbrush, which according to the plans of the incline will require a different adherence of supports.

Water poultices with ion exchange resin, cationic (10 min, 15 min) will be applied to the areas which will receive a preliminary treatment with citric acid (pH 6,0 1hr), in order to improve the changes of mechanical uncovering, whereby it was assumed that the lime wash directly above the original layer had been strengthened with a binding agent like skimmed milk, curd cheese, gypsum.

If the effects are unsatisfactory, the tests will be continued in order to attempt to increase the effect of the already-weakened lime wash and the binding agent. Due to the danger of chloride residues in the case of the application of ammonium chloride, the use of ammonium carbonate is preferable and the relevant tests will be done, also with addiction of EDTA 4Na, pH 8,5 (10 min, 30 min, 1 hr),[188] applied in a paper pulp. In a subsequent procedure, an attempt will be made to sufficiently weaken the stubborn bond, as well as its variety of active ingredients, so that one might attempt a subsequent mechanical removal.[189] It's hypothesized that the layers will become softer at the conclusion of the chemical reaction, and will be removed manually with soft instruments (e.g. rotating brushes, firm paintbrushes, cotton swabs, wood sticks, etc.) to not corrode the surface and with the aid of soft sponges soaked in distilled water.

For any stubborn residues and deposits which may remain, present on the surface of the walls or on the ceiling, a method of cleaning may be adopted which always uses a saturated solution of ammonium carbonate swollen with carboxymethylcellulose (like *Klucel*®) o *Carbogel*® to form a gelatinous mixture. The application can be executed with plastic spatulas, then left to react for 30min/1hr and then removed with a soft sponge and deionised water.

The removal of old stucco and plaster, if deemed necessary, will be executed with precise mechanical means and finished with vibrating engravers, ultrasonic scalpel.

5) Consolidation of the surface

Until a few years ago, most of the methods for the restoration or protection of artefacts used commercial products, mainly synthetic polymers such as *Paraloid*

[188] The idea behind this treatment is the fact that both solutions are working on a possible intermediate layer containing deposits of dirt. To make sure that the poultice does not dry too quickly, it might be useful to cover it with a sheet of polyethylene.

[189] It has been observed that it is even more convenient to wait one day following mechanical procedures, as the stucco layer will not be as easily damageable while the overlying limewash is still weak enough to be easily removed by a wooden stick.

B72®, *Mowilith 30®*, and *Primal AC33®*.[190] In controlled environments, the application of these polymers to fix powdered or flaked paint, and to re-adhere detached modelled stucco fragments, produced acceptable results.[191] But in most cases the use of synthetic polymers produced in just a few years rather dramatic effects on the artefacts.

The concept of reversibility in conservation/restoration treatment is still debated.[192] During the 1960s the accepted idea was that these substances could be removed at any time, leaving a completely unaltered substrate, but experiences accumulated during the years have shown that polymers lead to consistent damage in almost all the restored artefacts. Unfortunately, the removal of polymers is not easy and in some cases is not possible. The rule of thumb is simple: only inorganic materials should be used for conservation treatments of inorganic artefacts such as stones, wall paintings, stucco and so on. In this *"similia similibus curantur"* approach the concept of reversibility and compatibility assumes similar meaning.

Consolidation of painted surfaces (or stones or stucco) by inorganic treatments should provide the right content of carbonate binders to confer long term preservation to the works of art. Historically the Ferroni-Dini method, also called the "barium" method, is the first that provided reliable results and its success is mainly related to the removal of salts that threaten the paintings, reinforcing at the same time the porous structure.[193]

Recently, important progress has been achieved in the application of nonmaterial's to the field of cultural heritage preservation. Dispersions of kinetically stable $Ca(OH)_2$ nanoparticles in non-aqueous solvents have the optimal properties for conservation

[190] P.&L. Mora, P. Philippot, *La conservazione delle pitture murali,* ICCROM, Bologna 1999, p. 247-252. L. Borgioli, *Polimeri di sintesi per la conservazione della pietra*, Padova 2002.

[191] G. G. amoroso, M. Camaiti, *Scienza dei materiali e restauro, La pietra:dalle mani degli artisti e degli scalpellini a quelle dei chimici macromolecolari*, 1997, Firenze.

[192] L. Dei, P. Baglioni, M. Mauro, *Preprints of the Conference, Reversibility: Does it Exist?*, London 1999.

[193] E. Ferroni, D. Dini, *Chemical structural conservation of sulphatized marbles*, in Conservation of Stone I, preprints of the Contributions to the International Symposium, Bologna 1981, pp. 559-566. E. Ferroni, *Riflessioni sui processi degradativi dell'intonaco e sui metodi di intervento*, Atti del Convegno Internazionale di Studi "Piero della Francesca ad Arezzo", Arezzo, 1990, p. 219-231.
E. Ferroni, OPD Restauro, n.11, 1999, p. 97**.** G. Botticelli, *Metodologia di restauro delle pitture murali*, Firenze, 1992. *The Conservation of Wall Paintings*, proceedings of a symposium organized by the Courtauld Institute of art and Getty Conservation institute, London, 1987, July 13-16. M. Matteini, S. Giovannoni, *The protective effect of ammonium oxalate treatment on the surface of wall paintings*, Restauratorenblatter, 16, Wien, 1992, pp. 95-101.

of lime based artefacts.[194] Stable dispersion can be obtained in short-chain aliphatic alcohols. According to the features of the porous materials, the dispersing solvent can be pure, or can be used in a mixture with water to achieve the ideal penetration inside the artefact. The features of the solvent make the methodology very simple and available to everybody.

Stucco is another handmade material, based on the setting process of lime that has been successfully treated with nanoparticle dispersions. This material has a low porosity and the application of nanosized particles allows for the reinforcement of the surface layer, providing protection from wind, rain, and dust from the atmosphere.[195]

Nanodispersion of calcium hydroxide can be applied by using brushing or spraying directly, or with a brush of Japanese tissue.[196]

However, when the degradation is very severe, or the paint layer is heavily contaminated with sulphates, a combination of nanoparticles and barium hydroxide is the most appropriate treatment.[197] The areas ruined and degraded by crystallized salts need to be touched up by paintbrush with a 5% solution of barium-hydroxide in distilled water for two days with at least three repetitions. After at least a week you can proceed with the application and dispersion of calcium hydroxide.

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[194] P Baglioni, R. Giorgi, *Innovative physicochemical methodologies for the preventive conservation of wall paintings*, OPD Restauro, Firenze 1999, pp. 76-84. R. Giorgi, L. Dei, P. Baglioni, *Studies and Conservation*, n. 45, 2000, p.154. M. Ambrosi, P. Baglioni, L. Dei, R. Giorgi, C. Neto, *Prog. Colloid Polym. Sci.*, n. 118, 2001, pp. 68-72.

[195] P. Baglioni, C. Cesari, L. Dei, R. Giorgi, R. Grassi, M. Lorenzetti, M. Mauro, D.Pinzani, P. Ruffo, G. Schonhaut, *Strong Venetian Stucco with " proprietà chimico-fisiche, degrado in ambiente lagunare e conservazione mediante nanofasi cristalline di Ca(OH)2*, Atti del XVII Convegno Internazionale Scienza e Beni Culturali –Lo Stucco-Cultura, tecnologia, Conoscenza, Bressanone, 2001, pp 289-298. Stable n-propyl alcohol dispersions of calcium hidroxide –lime- synthesised in the form of nanosized crystals were tested as possible consolidation materials with complete physicochemical compatibility with the original materials of the stuccoes. The physicochemical characterisation was carried out by means of Fourier Transform Infrared (FTIR) Spectroscopy, Scanning Electron Microscopy with Energy Dispersive X-rays Spectroscopy (SEM-EDX), Dietrich-Fruhling calcimetry.

[196] Stable dispersions of calcium hydroxide have been successfully applied (replacing polymers) as fixatives to re-adhere lifted paint layers during many restoration workshops in Italy and in Europe, and as a Consolidant. In Slovenia, the use of nanocalcium in porous materials is come by easily and is prepared in the scientific laboratories of the center, through uiltrasounds. Good practice of using Calcium Hydroxide nanoparticles in the past six years on different cases in Slovenia: the Wall Paintings by Matevž Langus and Janez Wolf in the different Chapels of the baroque Church of the Assumption of Our Lady in Ljubljana (Franciscan church). Sevnica, Lutrovska klet, fragments of Roman wall paintings.

[197] P. Baglioni, R. Giorgi, *Soft and hard nanomaterials for restoration and conservation of cultural heritage*, Soft Matter, The Royal Society of Chemistry, n. 2, 2006, Cambridge, pp. 293-303.
L. Dei, B. Salvadori, E. Arlango, F. Pietropoli, C. Scardellato, *The frescos of the XIII and XIV century in the cript of San Zeno of Verona: the testing of nano lime dispersed in isopropyl alcohol during conservation work*, Scienza e Beni Culturali XXI, 2005, pp. 293-302.

The cohesion of the plaster will be restored partially by means of impregnation of ethyl silicate- (*Estel 1000*®) and we will proceed to micro grouting with mortar.

6) Operations for structural reinforcement, anchoring and relocation

Previously you will accomplish the removals of the precarious and movable parts of the stuccoes with relative numberings, cataloguing, mapping on graphic relief. The reassembly of the parts which were removed and which can be competently replaced will be executed with the use of new small fibreglass pins housed in the original openings properly cleaned from the residues of old adhesives and reinforced with epoxy two-component resins, taking care to protect the edges of the original material with a light film of acrylic resin dissolved in a medium solvent (*Paraloid B72*® in a compatible solvent of 5%). In the event of the detachment of fragments of stucco during the removal of lime wash layers, they will be glued with calcium caseinate or with pure vinyl resin.[198]

For the treatment of large detached areas there is a wide range of different, mostly inorganic grouting mortars based on lime with hydraulic factors of prefabricated products, for example *Ledan*® or *PLM A*®. The grouting material must penetrate and be injectable, the mixture must be stable in dispersion and it should have good adhesion to the detached surfaces. The physical properties should be similar to the original plaster. The new material should dry fast, be light and should not bring in soluble salts or be a source for microbiological growth. In the literature, there are many tests mixing different grouting materials with light fillers, such as silica gel (*Aerosil*®), pumice stone, etc. To fill the large gaps, the idea is to use a ready-made product such as *Ledan D1*® or *Ledan TC1*® mixed with *Aerosil*®, and in large cavities with foam to reduce the weight and the accumulation of water.[199]

7) Grouting and microgrouting operations and additions

To give uniformity to the work, you grout the gaps of the stuccoes and the discontinuities of plans with a mixture composed of lime putty and marble dust, a ratio of 1:2 - 1:3 for using trowels and spatulas; eventual cleaning of dirty edges should be done with water and a sponge.[200] The compensation of deeper lesions will

[198] The calcium caseinate is obtained by swelling casein in water and subsequently adding slaked lime.
[199] Barbara Schick, *The Conservation of the wallpaintings of the belvedere on the Pfingstberg in Potsdam*, Baroque Wallpaintings, Technical Problems and Current Conservation Methods, Wien, 1998, pp. 131-133.
[200] For this purpose several mortar mixtures will be applied which are close to the same composition, colour and grain size of the original mortar.

be executed with successive layers of mortar (slaked lime, marble dust in a 1:2 proportion, with the addition of "cocciopesto").

- ***The return of the critical text***

One must asses the opportunity to reconstruct the missing parts with new plastic configurations that are imitations of those present and similar. One can gage the past grandeur of the altar, even if time has mutilated various figures and plastic decorations. The decision to reconstruct some volumetric areas of the statue groups are justified from as aesthetic point of view to restore the unity of the reading of the work; it's hypothesized that the hasty reconstruction executed during prior restorations on some important areas of the sculpture- for example the legs and arms- will become inappropriate and degraded, and will cause a clashing effect between the new-found equilibrium of volume and colour, at the end of the restoration.

The reintegration will be executed on modest sized gaps on the body parts, draperies and reliefs, and will be executed with mortars made of lime and marble dust, as were previously used for the grouting operations. Any tonal balancing in the walls will be made with lime milk and natural pigments to soften the colour differences between the materials used in previous restoration which are still considered appropriate and will therefore not be removed. There will be no final protection applied to the area because it's not considered essential.

- ***Summary table of the restoration works***

1) Preliminary Operations

- Incoherent deposits of dirt or dust: preliminary removal of abundant inconsistent deposits with soft brushes and vacuum cleaners, electric dust extraction.

- Analysis: other physicochemical characterisations must be carried out by means of Fourier Transform Infrared (FTIR) Spectroscopy, Scanning Electron Microscopy with Energy Dispersive X-rays Spectroscopy (SEM-EDX).

2) Extraction of the soluble salts, Soft Pre-consolidation

- Testing salt extraction: cellulose poultice containing demineralised water applied for 24 hours, conductivity measurements.

- Extraction of the soluble salts: cellulose poultice in deionised water for an undetermined amount of time.

- Light preconsolidation: Japanese paper damp with a solution of de-ionized water, acetone and alcohol in equal parts.

3) Cleaning of dirty surface

- Dirty surface: plugging with distilled water, washed with natural sponges and solutions saturated with ammonium carbonate.

- Deposit stains both inconsistent and waxed: wraps of localized water saturated with ammonium carbonate in paper pulp/cellulose poultice and sepiolite, poultices of deionised water with surfactant (*Tween 20*®) or solvents (*acetone, white spirit*) applied with cellulose poultice and/or sepiolite. Mechanical cleaning of waste with deionised water through brushes and sponges.

4) Removal of the lime wash layers

- Removal of lime wash layers, non resistant: mechanical uncovering will be carried out with various scalpels (stiff scalpels with differently-shaped blades, ceramic blades, etc.), rotating instruments (brushes of various materials, micro-grinding heads, eraser heads, etc.), pneumatic needles (with varying frequencies and points), ultrasonic needle or ultrasound (with different points, air-and water-cooled), micro-sand blaster.

- As the mechanical uncovering of the stuccoes will be not completed because of the resistance of a last lime wash layer, further interventions had to be planned: chemical methods will be carried out with cationic ion exchange resins. The resins – a weaker and a stronger type- will be applied either pure or mixed with *Arbocel*®: Cationic ion exchange resins type *SK 50*® mixed with *Arbocel BC 200*® at a proportion of 1:2 at a pH of 3. Cationic ion exchange resins type *SK 30*® mixed with *Arbocel BC 200*® at a proportion of 1:2 at a pH of 3.[201] The contact time has to be increased to 10-15-20 minutes in order to obtain a better result.

- Strong Lime washes: a poultice of cationic ion exchange resins will be applied after a preliminary treatment with: citric acid (pH 6,0, 1hr) / or ammonium

[201] The addition of *Arbocel*® does not change the pH but helps to keep the poultice wet, thus favouring the ion exchange, which only occurs in an aqueous solution.

chloride (pH 8,5, 90 min.) / or ammonium carbonate (pH 8,5, 90 min.)[202], to improve the removability of the lime wash and increase the effect of the already-weakened lime wash and the binding agent.

- On stubborn incrustations and inclined surfaces: gels with a saturated solution of ammonium carbonate mixed with carboxymethylcellulose or *Carbogel* ® (30 min.-1 hr).

5) Pre-consolidation/Consolidation of the surface

- Pre-consolidation should be done-especially on the parts where the surface has lost its binding media and tends to flake or powder- first by using a solution of ammonium caseinate (1-1,5%) as a consolidator.

- In a further step (after a least 24 hours), the same areas will be treated (even in areas with the presence of salts) with barium hydroxide at a concentration of 3-5%. It can be applied through Japanese tissue, by brush or in a cellulose poultice (*Arbocel BC 1000® and BC 200®* in a proportion of 3:1) for 4-6 hours (depending on the temperature of the environment).

- Consolidation of dispersed nanoparticles of calcium hydroxide in short-chain aliphatic alcohols should be done in combination with other fixtures (like ammonium caseinates) in the cases of specific decohesion of stuccoes and wall paintings.

6,7) Operations of structural consolidation, relocation and grouting

- Reassembly of parts removed with small fibreglass pins, housed in the original passages, cleaned of residues of old adhesives and bonded with resins made with two components.

- Filling the large gaps with a ready-made product such as *Ledan D1®* or *Ledan TC1®* mixed with *Aerosil®*, and in large cavities mixed with foam.

- The fillings are made from a mixture of slaked lime and marble dust, in a 1:2 ratio, while the gaps will be secured by a weak lime mortar in a 1:3 ratio.

[202] In a saturated solution (25-30%) applied in the form of paper pulp. To increase the efficiency of this poultice, in some cases the addition of EDTA 4Na (pH 8,5) at 0,5% might be useful.

CONCLUSIONS

Initially, the aim of this work promised to look like an elaboration of a technical restoration project concerning the stucco decoration of the presbytery of Kostanjevica; afterwards, it emerged the necessity to widen the scope of the debate to the theoretical basis which is founding our discipline, and I correlated my work also with a historical research. I have to stress that the object of this thesis departs slightly from the topic of architectural restoration, leaning more towards the sculpture restoration, being about a restoration project of a stucco work of art, preceded by a related historical-artistic research.

My background as a restorer and art historian, which I developed in Italy, has always oriented me towards a critical vision of the restoration as elaborated in Italy mainly by Cesare Brandi and Umberto Baldini; so I considered important to approach in the first part of the thesis an analysis of the history and theory of restoration, in order to understand how in the end every historical period is established and influenced by the ideologies of its protagonists. Such ideologies have always been distinguished in two opposite currents: one inclined to put the emphasis on the work of art in its creative act from an esthetical point of view, the other inclined to respect the history of the object with all the superimpositions which followed one another during the flowing of time. Other philosophical currents which emerged later have always had the tendency to draw near the one or the other pole, and it has been important to understand their limitations, contradictions and obstacles, since the assumption of a single theory, always applied identically to itself, has often caused a separation between theory and operativeness. Out of the current trends, the "preservative restoration" – offering fixed postulates on which on can lean, but permitting to adapt their application according to the issues of the actual case – is the one that proved to be closer to our aim: to remove the causes and, if possible, the effects of the deterioration of the object in order to secure it and pass it on to the posterity respecting its history. Moreover one should be aware that the way to operate will be suggested by the object itself during the actual phase of restoration, and that a deeper knowledge of the object, which is intended as a fundamental operation, may also bring to some operative choices that sometimes can also not fully meet the objectives as they were fixed in advance.

In the second chapter of this thesis I dealt with the historical-artistic aspect of the examined object, starting with the analysis of the construction history of the church, which is closely linked to the one of the stuccoes. I also tried to reconstruct the chronology of the different stucco decoration parts inside the church, comparing the areas which survived the World War One with some historic pictures taken before the war. It emerged that in all likelihood most of the stuccoes of the nave were already present in the first church built in 1661, and that those of the presbytery have been carried out only afterwards, also because they were part of building of the new church completed in 1691.

From the analysis of the historical criticism concerning the possible authorship of the work, the most reliable hypothesis is the one taking into consideration hands similar to the manners of the artists from Ticino, in particular of the Retti family and of those close to Casella. Considered the mobility that characterized the stucco decorators from Lombardy and the many requests they had to handle, it has been conjectured that some decorators from Val d'Intelvi comparable with the manner of Casella who were working in Vienna at the end of the first half of the century were later called to Gorizia as well in order to carry out the decoration of the church of the Carmelites.

Also the technique of execution, as verified by the analysis, does not make use of calcium sulphate, and presents at least four layers of finishes, with gold leaf heightening on some more projecting parts, which is compatible with the refinement and mastery of the stucco art as it was fashionable in the best workshops of the time.

In particular, in both the samples it is clearly visible a rough base made up by calcium carbonate and silicates, where one can notice a dividing line which is due in all likelihood to the moulding / compaction carried out by the tools of the decorator during the outlining phase. There follows the laying of four more thin coats of mixture composed mainly by calcium carbonate, with slightly darker lines delimiting one coat from the other, while the last line is more marked and yellowish, which can be related to the patina. Then there follows another coat, rougher, with large inclusions made up by calcium carbonate and calcium sulphate, which can be related to one or more plastering's from a previous intervention of restoration.

Most of the stuccoes of the presbytery have been covered by coats of lime-based repaintings which flatten the original shaping, so in the intervention project a part of the study has been devoted to determine a methodological approach that minimizes as much as possible the risk of damaging the original surface during the removal of

the plaster. The need for such an operation is based on esthetical factors as well as on preservative factors, since without its removal it's impossible any operation of strengthening of the surface.

However, from the analysis of the state at the present moment, it emerged a not excessively worrying situation from the point of view of the preservation, as the internal relative humidity is constant and is not able to cause damages to the work; nevertheless, only during the works of restoration there will be the occasion of a more direct examination of the items and hence of a more accurate observation of the forms and causes of deterioration and of the technique of execution. This work, carried out with the prospect of the start of the works of restoration of the stuccoes in mind, remains available to the curator and to the restorers who will be, hopefully in a near future, the responsible of the works, confirming once again the need for a even more precise philological and scientific analysis of the object, which will be identified as a whole during the actual intervention.

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ABSTRACT OF THE THESIS AND KEYWORDS

The initial part of the thesis is focused on the concept of conservation and the history of restoration. One part of the study tells the history of the developing concepts of "heritage" through international doctrines. The charters and related documents outline basic principles and specific methods of conservation and Slovenia, being a member state of ICOMOS, is committed to follow these guidelines.

Having understood the Western methodologies and concepts of conservation, analysing the last fifty years starting from Scientific Restoration in theory of Gustavo Giovannoni and concluding with the work of Cesare Brandi and Giovanni Urbani, the study then ventures into the Slovenian scenario by analysing some of the past experiences and existing situations along with the legal and policy frameworks available for cultural heritage protection in the country.

The second part of the thesis is focused on the restoration project of the stucco decoration in the Presbytery in the Franciscan Friary of Kostanjevica in Nova Gorica, Slovenia. The first step is the art-historical analyses of the decoration through the historical documentation and the bibliography existing, considering the point view of the stucco decorations' technique and its historical evolution according to the variety of the constitutive materials used. The second step is a scientific-methodological research concerning the detecting of the material: optical microscopy in visible light (VIS) in bright field with crossed (bfx) and parallel (bf =) polarizer and analyzer and the ultraviolet (UVF) light. Infrared spectroscopy with Fourier transformation (FTIR) can be coupled with a microscope (Mic) with the needle taken from individual layers of particles. They allow establishing the stratigraphic succession and a close examination of the plasters of the object and defining the compositions of the sandy aggregate and of the binder, in the internal mortar layer as well as in the external finishing layer. Through the same techniques, besides, it's possible to characterize the products of deterioration (efflorescence of soluble salt etc.) which have also caused the break-up and the deterioration of the stucco object. Then the third step develops the technical approach individualising the priorities to establish the typology and the sequence of the restoration operations. Detected the most serious phenomenon of degrade, the study will define the general methodology to apply to the specific case of approaching a correct methodology of restoration, with test

cleaning according to the current methodology of restoration of stucco material, like ammonium carbonate, barium hydroxide, nanokalk, or mechanicals methodology.

Main problems/challenges to be faced

The main problems discussed in the study are the developing concepts of "heritage" through history also in the Slovenian scenario. After that in the second part of the thesis the main problem is focused on the factors of deterioration of the stucco decoration in the Presbytery in the Franciscan Friary of Kostanjevica. The causes of deterioration will be checked also by sample from fragments of mortar by test results made in laboratory of the Restoration Center of Ljubljana, Slovenia. Afterwards a restoration project will be proposed with the different operations to be performed: cleaning tests for the removal the non originating layers of bland, consolidation, filling and retouching.

These skills will also serve to outline to which field the stucco decoration belongs to.

Keywords

- The stuccoes of the Church in Kostanjevica
- Restoration works on stuccoes
- Theories of restoration
- Restoration in Slovenia

IZVLEČEK NALOGE TER KLJUČNE BESEDE

Prvi del diplomske naloge se osredotoča na koncept ohranjanja in restavriranja skozi zgodovino in na razvoj pojmov »dediščine« ter mednarodnih doktrin. Listine in z njimi
povezani dokumenti predstavljajo osnovna načela in specifične metode za ohranjanje kulturne dediščine, pri čemer se je Slovenija, kot država članica ICOMOS, zavezala, da bo te smernice uveljavljala.
Analiziranih je bilo zadnjih 50 let znanstvenega restavriranja in koncepti ohranjanja v državah Zahodnega sveta, s poudarkom na italijanskih in avstrijskih teorijah. Študija se nato posveča slovenskemu območju z analizo nekaterih preteklih izkušenj in obstoječe situacije v skladu s pravnim in političnim okvirjem Varstva kulturne dediščine.
Drugi del naloge se osredotoča na restavratorski-konservatorski projekt na štukaturah v prezbiteriju Frančiškanske samostanske cerkve na Kostanjevici v Novi Gorici, Slovenija. Obsega umetnostno zgodovinsko analizo štukatur s pomočjo arhivske dokumentacije, obstoječo bibliografijo ter analizo tehnologije štukatur in njihov zgodovinski razvoj in na uporabljene sestavne materiale. V drugi fazi so se izvedle znanstveno-metodološke raziskave sestave štukatur: optična mikroskopija obrusov v vidni svetlobi (VIS) v svetlem polju s prekrižanima (bfx) in paralelnima (bf=) polarizatorjem in analizatorjem ter v ultravijolični (UVF) svetlobi, infrardeča spektrometrija s Fourierjevo tranformacijo (FTIR) lahko sklopljena z mikroskopom (Mic) z iglo vzetih delčkov posameznih slojev.
Omenjene analize omogočajo določitev stratigrafskega zaporedja in natančno določitev sestavin peščenega agregata in veziva v notranjem sloju štukatur, kot tudi v zunanjih zaključnih slojev. V tem sklopu se je ugotovilo tudi konservatorsko stanje umetnine. Tretji del študije razvija konservatorsko-restavratorske posege in postopke: predutrditev in konsolidacija barvne plasti in ometov, kemično čiščenje barvne plasti in zaključnega sloja štukatur, mehansko odstranjevanje neustreznih slojev neoriginalnih beležev, kitanje, retuša, v skladu z veljavno evropsko metodologijo v restavriranju.

Glavni problemi / izzivi
Glavni problem obravnavan v prvem delu študije je razvoj koncepta "dediščine"

skozi zgodovino, tudi v Sloveniji. V drugem delu diplomske naloge so glavna tema dejavniki propada štukaturne dekoracije v prezbiteriju frančiškanske cerkve na Kostanjevici. Vzroki poškodb so bili preverjeni tudi z analizami vzorcev štukatur. Rezultati analiz so bili opravljeni v laboratoriju Restavratorskega centra Ljubljane, Slovenja. Nato je predlagan restavratorski projekt z različnimi postopki: poskusi čiščenja umazanije in odstranjevanje neustreznih beležev/ometov, konsolidacija, kitanje in retuširanje.

Ključne besede

- Štukature v cerkvi na Kostanjevici
- Restavriranje štukatur
- Teorija v restavratorstvu in konservatorstvu
- Restavriranje v Sloveniji