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Theories of Conservation and Scientific Restoration from Gustavo Giovannoni's Point of View

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Abstract

"Gustavo Giovannoni" (1873–1947), the Italian architect, urban designer, and restorer who was born in Rome and studied Civil Engineering at the University of Rome, became the Professor of Architecture Department in 1905 and latterly the dean of the same university (1913–1935). He edited a set of regulations that were adopted in the "Athens Charter" later in 1913. His four main principles are restoration by consolidation, installation, liberation, completion, or renovation. Although he established a scientific centre for studying history of architecture and published several articles in various architectural journals, there is little literature about his biography and theories of conservation and scientific restoration. This article tries to enlighten how his theories affected the history of conservation. For this aim, his biography and theories are mentioned in detail. The methodology of this article is a qualitative survey using the reliable books of libraries and first-hand resources and references.

Keywords: Gustavo Giovannoni; Conservation; Scientific Restoration; The Athens Charter; International Charters; Camillo Boito.

1. Introduction

"Gustavo Giovannoni" established scientific restoration after correcting and completing the principles of "Camillo Boito". He saw a conflict between the two concepts of life and history. The first meant meeting the requirements of modern life and development, and the second meant respecting the historic and artistic values as well as the environment of the historic cities. He proposed the theory of pruning the urban fabric to modernize the historic sites, which included keeping traffic away from the historic sites, preventing them from being cut off by the streets, improving the social and health conditions, and protecting the historic buildings. The present article is the result of research on the theories of Gustavo Giovanni and their effect on the theoretical foundations of restoration. This article tries to answer the question of what effect the theories of "Gustavo Giovannoni" had on the "Athens Charter" and followingly on the theories of conservation and restoration. To find out the answer to this question, at first the biography of "Gustavo Giovannoni" and his thoughts and ideas, and then the thoughts of "Camillo Boito", which have had a great impact on Giovannoni's ideas are studied. Afterwards, the scientific restoration was explained that "Gustavo Giovannoni" found for the first time in refining and completing the theories of "Camillo Boito". Then, the "Athens Charter" and its resolutions were stated and an attempt was made to examine the impact of the theories of "Gustavo Giovannoni" on that resolution. The research method was completely analytical using the library and first-hand reliable resources and references.



Figure 1. "Gustavo Giovannoni" (Left:URL1, right: URL2).

2. Biography and Theories of “Gustavo Giovannoni” and “Camillo Boito”

2.1 Biography of “Gustavo Giovannoni”

“Gustavo Giovannoni” was an Italian architect, urban designer, author, and architectural historian who was born in Rome in January 1873 and died in Rome in July 1947 at the age of 74. He graduated from the University of Rome in 1895 with a degree in civil engineering and received a degree in public health before studying traditional art and architecture under the supervision of “Adolfo Venturi” (1856–1941), the Italian art historian. In 1899, he was a pupil and assistant of “Guglielmo Calderini” (1837–1916), the Italian architect, in the School of Engineering, and in 1905, he became a professor of architecture. Strong technique along with traditional art led him to major in restoration and major urban redevelopment projects. In 1910, he became a representative of “AACAA” (“Associazione Artistica Fra i Cultori di Architettura”), which was founded in 1890 to spread awareness of cultural and historical heritage and promote the theoretical foundations of restoration in Rome. His theories, which originate from his artistic and technical experience, can be seen in his work when he was working simultaneously in part of “Caprera” in Rome (1907–1911) and in “Peroni's House” in 1909, while he was the head of a company, he also obtained the chair of General Architecture at the Faculty of Engineering of Rome in 1913. The research done by “Antonio Da Sangallo ii Giovane” (1484–1546), an Italian architect who combined archaeology with the scientific arts, sparked interest in “Gustavo Giovannoni”. The idea of Renaissance architecture inspired “Gustavo Giovannoni” to pursue architectural education. In 1918, he founded “SSA” through the “AACAA” and then gave a conference on the restoration of historic buildings at the “Istituto University”, and he became the dean of the faculty from 1931 to 1935 (URL1).

“Gustavo Giovannoni” was an architect and a member of the Academy and special member of “LAZIO” (“Società Sportiva Lazio” or “Lazio Sport Club”). He was one of the leaders of the association in the main branch of the “Vittorio Veneto” headquarters at the age of 20. In 1913, he became a professor of architecture at the University of Rome, and together with “Marcello Piacentini” (1881–1960), an Italian urban theorist, he published the journal “Architecture and Decorative Arts” (“Architettura e Arti Decorative”) in 1921. He was one of the most passionate preachers of the Faculty of Architecture in Rome, where he taught courses about the restoration of historic monuments. From 1921 to 1926 he was in charge of the Roman section of the “CAI” (Italian Alpine Club). From 1927 to 1935 he was the director of the School of Architecture in Rome and founded the Centre for the Studies of the History of Architecture. He published the journal “Palladio” in 1937. He is the author of many articles such as “Through the History of Architecture” in 1913, “Deep Understanding of the History of Architecture”, “Articles on Renaissance Architecture” in 1931, and “The Restoration of Historic monuments” in 1945. His architectural achievements include the “Torlonia Building”, the establishment of “Birra Peroni”, the “The Church of the Guardian Angels in Rome”, and the “Torlonia Villa” in “Formia”. Recognizing the history of architecture in combination with a treasure trove of technical information, “Gustavo Giovannoni” linked the fields of restoration of cultural heritage, urban planning, and architecture. As a scholar, researcher, and urban designer, he paid attention to the relationship between new and old contexts in the urban fabric of large cities. The two of his fundamental interventions are entitled “old city and new construction” and “dilution of old buildings”. He was also one of the first conservationists with the message of protecting the natural landscape in 1939 (URL2).

2.2 Theories of “Gustavo Giovannoni”

“Gustavo Giovannoni” proposed principles in the field of urban restoration as follows: first: urban separation which is the separation between old and new cities; second: spatial separation which is the separation between living and active urban context with dead and inactive parts. The goal of his intervention in the ancient context is to improve the performance and function of the city concerning living and dynamic parts. His proposed use of historic buildings and sites is based on the division of the buildings into two categories: dead and living. The function of the museum was suggested for the dead parts and the revival and restoration of the urban texture for the living parts were considered. His method of action was an improvement and modernization, and his intervention method was the method of urban reconstruction and the comprehensive method of urban restoration (Habibi, 2002, p. 42).

In 1920, “Gustavo Giovannoni” chaired the “Committee for the Preservation of Italian Art and Antiquities”. His collection of instructions on the urban fabric adjacent to the historic monuments was later illustrated and published in the “Athens Charter” in 1931. He did not believe in modern architecture and considered it without style and believed that we should not build a modern building next to a historic and ancient building because he considered it a betrayal of the ancient style. He believed that we could build a building next to the ancient architecture or complete a part of a building that has been destroyed, but we should take the style of that historic building and then make it as simple as possible. In short. The building should be free of decorations and all its components should be schematic and simple. We have to construct a “NEUTRE” building, that is, neutral and indifferent (Khatouni, 2006).

In the twentieth century, the development and potential application of modern scientific methods and techniques in the field of conservation were accepted by the official world conservation circles. At the end of the “Athens Charter” in 1931, for example, they advised “the rational use of all resources for the use of modern technology,

especially reinforced concrete." The Italian Declaration in 1932, presented by "Gustavo Giovannoni", also suggests: that "research results should be used in complex and detailed activities related to the protection of dilapidated structures, and experimental and self-extracting solutions should be discarded in favour of scientific solutions." According to the "Venice Charter", "in the protection and restoration of monuments, all the sciences and technologies that can help to study and preserve the architectural heritage should be used." It is interesting to note that the Italian classification proposed by "Gustavo Giovannoni" was called "scientific restoration", which many conservatives later used to describe their work (Jokilehto, 2008, p. 325).

2.3 Theories of "Camillo Boito"

"Camillo Boito" (1836–1914), was an Italian architect and writer born in Rome and died in Milan. He was the first person who replaced the adherence to the formal-stylistic features of the buildings under construction by paying attention to the architectural concepts in revitalization. "Camillo Boito" is best known as a cultural and social figure as an architect and restorer of historic buildings. Perhaps his mastery of various aspects of the restoration of historic buildings and the development of a relatively broad framework for them can also be attributed to this issue.

Similarly, greater interest in ancient buildings is seen as a historic document in the writings of "Camillo Boito". Nevertheless, contrary to more popular theories and those who have worked more on architectural restoration, revitalizing, reconstruction, and adaptive reuse of the historic monument, whether it is an abandoned and half-ruined building or it hardly survives in the urban context and it has lost its original function, is the core of his speech; the historic monument must cross the boundaries of time and always play an active role in the lives of people. It does not mean paying attention to anything but the renewal and survival of the building, but to immerse oneself in the elegance and cultural content of architectural restoration works to the extent that the culture of the last century was able to recognize it, which is a complementary and inseparable recipe. If we want to introduce the main purpose of "Camillo Boito" concerning what has emerged as the most prominent points of the ideas of architectural restoration theorists, it will be briefly as follows:

- preserving and maintaining the original condition of the building at the time of any additional construction interventions, reconstruction, or local structural changes;
- deciding and accepting responsibility through study, science, and documentary studies, and responding to living needs instead of previous interventions and mental excavations and free conclusions and arbitrary designs have been done.

"Camillo Boito" took his ideas about architectural restoration to the last level and by publishing and discussing them, provided the best basis for establishing valuable theories that are the basis of architectural restoration today. In 1913, the "Athens Charter" on restoration, which led to the first charter of architectural restoration, reflected many thoughts of "Camillo Boito". In terms of the importance of the proposed set of eight points of view of "Camillo Boito", and also because it can introduce the first codified and systematic theory of architectural restoration, they are narrated as follows:

- distinguishing between the old style (existing and used in the building) and the new style that is used in the reconstruction of a building;
- distinguishing between new building materials and building materials that have been used in the past;
- do not use corners, angles, and decorative surfaces - in new sections of the - buildings subject to restoration;
- creating an exhibition or museum of elements, sections, or pieces of the historic building that were not reused during the reconstruction of a section, inside or near the restored building;
- engraving the date of restoration work at a point of the building or using a contract mark on the reconstructed parts and elements;
- installing the inscription on the restored building;
- describing and justifying the different stages of the restoration work along with the photo and plan and placing it in the building or near it, and attempting to identify the monuments by the social media;
- trying to identify and introduce the restored building on a great scale (Falami, 2008, pp. 23-25).

"Camillo Boito" was important in the formulation of modern Italian politics in two ways: first, through his profession within the framework of Italian administrative institutions, his main interest was the modernization and the establishment of an efficient administrative and a formal system in the Italian government and he was considered responsible for historic buildings. Second, he helped popularize the adoption of an effective and informed policy for the protection and restoration of historic buildings in the form of a charter, which itself became a standard reference (Jokilehto, 2008, p. 222).

3. “Scientific Restoration” and Explanation of Specialized Words

In 1910, on the occasion of the exhibition of measured drawings organized by the members of the “Italian Association of Art, Culture and Architecture”, the newly appointed director of the association, “Gustavo Giovannoni”, drew the attention of the audience to the importance of “minor architecture” to the realization of the continuity of the urban fabric of a historic city, and he became an urban planning expert in Rome. From 1927 to 1935, he was the director of the “School of Architecture” in Rome and played a key role in the establishment of an independent faculty of architecture, where he taught the restoration of historic monuments from 1935 to 1947. In his teachings and writings, “Gustavo Giovannoni” reinforced the principles of modern Italian conservation and, while emphasizing a critical scientific point of view, laid the foundation for “Scientific Restoration” (“Restauro Scientifico”). This policy was applied not only to the historic monuments, but to all historic buildings in general, and even became the basis for a new approach to the historic sites and the historic neighbourhoods of the ancient cities.

The principles proposed by “Joseph Hermann Stübben” (1845–1936) in his work entitled “Der Stadtebau” (1890), according to which the modern city should be expanded over the existing historic city by using the existing conditions, led to, the 1908 master plan, which caused new streets and roads appear or built in Rome. “Gustavo Giovannoni” has been critical of these proposals since 1913. He saw a conflict between the two concepts of life and history, each of which required a different approach. One meant meeting the requirements of development and modern life, and the second meant respecting the historic and artistic values as well as the environment of the ancient cities. He believed that “minor architecture” represented the mentality of the ordinary people and their ambitions more than the luxurious and majestic palaces. In Rome, a lot of research was done on the history and typology of the texture of the “Renaissance neighbourhood” (Quartiere del Rinascimento). He emphasized the fact that the city has developed over time and different styles have been represented in different eras. “Gustavo Giovannoni” like “Camillo Sitte” (1843–1903), (Falamaki, 2008, pp. 21-23) the Austrian architect, painter, and urban theorist, emphasized visual values, aesthetics, and sudden surprises due to the contrast between the magnificent palaces and the “minor architecture” and “architectural order” that should be studied obsessively.

During this period of the prevalence of futuristic and pragmatic designs, “Gustavo Giovannoni” was often alone in defending historic cities. Following a compromise, he formulated a theory for the modernization of historic sites, respecting their ancient identities, under the title of “pruning” the urban fabric, which kept the area of historic sites away from circulation, preventing them from being cut off by the streets, including improving social and health conditions and protecting historic buildings. To achieve this, he proposed the demolition of less important structures to create more space for essential services.

It is interesting to compare the approach of “Gustavo Giovannoni” with the final decisions of the “CIAM” (Congrès Internationaux d'Architecture Moderne) or “International Congresses of Modern Architecture” in Athens in 1933. These decisions were later gathered and edited by “Le Corbusier” (1887–1965), the Swiss-French architect, designer, painter, urban planner, and writer. They accept and recommend the protection of past architectural values if they are in accordance with the public interest and do not cause unhealthy conditions for the inhabitants living in historic sites. To avoid destruction, it was proposed to limit the main load of circulation outside of the important historic zones, and if the demolition of old buildings is justified for health and hygiene reasons, should allow the building of green spaces and individual architectural values should also be emphasized.

“Gustavo Giovannoni” was consulted in the revision of the 1908 master plan of Rome, as well as the master plans of other cities, such as Venice, Bari, and Bergamo, in which the concept of “pruning” was implemented. Although this idea seemed like a reasonable compromise on all sides, it was not always easy to implement, and even in the best of cases, the newly opened areas lacked architectural identity.

During Fascism, “Mussolini” considered himself the same as the ancient Roman emperors, and despite the destruction of the “Medieval slums”, displayed classical Roman monuments, such as “Emperor Trajan's Square”, “Royal Palace” (Via dei Fori Imperiali) (1924), the “Arch of Janus”, the “Temples of Fortuna Virilis”, “Vesta”, and the “Marcellus Theatre” which formed “Via del Mare”, and the “Church of Santa Rita” was relocated (1932). The excavation and restoration work was carried out under the supervision of “Antonio Munoz” (1884–1960), who was responsible for most of the work done on the historic monuments following the established principles of the Mussolini period. The “Largo Argentina” site with four temples from the Roman Republic era was excavated in 1928, and the area around “Agusteam”, where the new “Ara Pacis” exploration work was specially covered during 1931–1932. They built new streets in the city; Like the “Via Della Conciliazione” in front of the “San Pietro” façade, which destroyed the ancient “Borgo” (1936–1950). Although Rome took on a civic appearance as a result of such operations, it still retained its historical perspective and showed no trace of modern high-rise buildings.

In addition to researching urban planning, “Gustavo Giovannoni” has been a member of the “High Council of Fine Arts” (“Consiglio Superiore Delle Belle Arti”) for more than 25 years and also had other commissions on his résumé. He also worked with government and city officials to restore historic buildings. His view of restoration differed from that of earlier Italian theorists, who saw it as a cultural category related to the evaluation, and rehabilitation of

historic buildings, taking into account the context of all important periods, rather than restoring them to their ideal form. He considered the theory of "Eugène Viollet-le-Duc" (1814–1879), (Falamaki, 2008, pp. 15-18) "unscientific" which was the cause of distortions and arbitrary interventions, according to which every building was built by an architect at a certain point in time, and its premise is that the architect who repairs and builds the building, can understand the ups and downs of the historic monument and also its style in the past, which of course they no longer have a sense of. Given the use of modern architectural forms in historic buildings that were prevalent until the neoclassical period (Amen, 2017), "Gustavo Giovannoni" believed that this work was not successful in the modern era due to the lack of a modern and appropriate style and the lack of sensitivity to their use. The concepts of his theory were consolidated in line with the criteria of "Camillo Boito" and their final form was presented in his work entitled "Questioni di Architettura Nella Storia e Nella Vita" ("Questions of Architecture in History and Life"). He emphasized preservation, conservation, and consolidation, and considered the use of modern technology when consolidating (if necessary) as permissible. The main goal should be to preserve the originality of the structure and to observe the whole "artistic life" of the monument, and not just its identity in the early stages of construction. Any subsequent additions must be dated and viewed more as an integral part of the whole mass than as a decoration part. In addition, these attachments must be documented based on fully reliable data. He introduced these principles at the Athens International Congress in 1931 and thus played an important role in drafting the final conclusion, the so-called "Athens Charter". Upon his return to Rome, he drafted an Italian charter entitled "Norme per il Restauro dei Monumenti" ("Rules for the Restoration of Monuments"), which was approved by the "Office of Antiquities and Fine Arts" in December of that year and then officially published in January 1932. In comparing the spirit of these principles with the ideas of "Camillo Boito", which considered the monument primarily a historic document, he offered a much more comprehensive view that included architectural, historical, environmental, and structural aspects of the building. He later revisited his Italian charter, interpreting it for historic monuments. "Gustavo Giovannoni" considered restoration in four ways: a) restoration by consolidation; b) restoration by reconstitution of components (recomposition or anastylosis); c) restoration by liberation; d) restoration by completion or renovation. He agreed with "Camillo Boito" that the restorations should not be visible, and he considered it possible by resorting to using modern methods and technology; such as cement grout or the use of invisibly reinforced concrete or metal structures as earthquake protection. Nevertheless, at the same time, he emphasized that modernization should not go to extremes that would damage the structure. He did not refuse the demolition of the "bell towers of Pantheon", the destruction of newer structures of "Parthenon", the restoration of the "Masion Carree" in "Nimes", and the restoration of the "Curia" in Rome, because he believed that what was discovered was much more important than what was lost. Despite agreeing with the content of the book of "John Ruskin" (1819–1900) (Falamaki, 2001, pp. 18-20), "The Seven Lamps of Architecture" (May 1849), and considering it impossible to recreate ancient architectural monuments, he, like "Camillo Boito", believed that after the sixteenth century, modern buildings were built with such perfect technology that it was easy to recreate them. In 1938, another set of guidelines was published to complete the criteria and standards developed in 1932. The new text was compiled by a panel of experts, including "Gustavo Giovannoni" and "Guglielmo De Angelis d' Ossat" (1907–1992), who was later appointed general director of the "Office of Antiquities and Fine Arts", and the founder of the "Faculty for the Study and Restoration of Historic Monuments at the University of Rome". He was also one of the main contributors to the creation of international courses at "ICCROM" (The "International Centre for the Study of the Preservation and Restoration of Cultural Property"). In the above-mentioned series of guidelines, special emphasis on administrative aspects, regular preservation, and timely repairs, immediate and methodical protection of the site and archaeological findings, the need for on-site protection, and protection of the authenticity of urban context with historic and artistic values have been done. In addition, it was proposed to strictly ban construction in accordance with "historical styles" even in the areas without special monuments or historic landscapes. In the following year, 1939, a new law was passed in Italy to protect the objects of artistic and historical significance, as well as another law to legally protect sites of natural beauty (Jokilehto, 2008, pp. 242-245; Jokilehto, 1986, pp. 351-356).

3.1 Anastylosis

(Oxford Dictionary: Greek word for restoration) refers to a type of restoration in which the current blocks of historic material are restored or rebuilt in their original location. This is usually the case with "dry masonry", where the building material is mortar-free and with a minimum amount of fresh material (usually not more than 10%) distinguishable from the original (by close inspection), but should not distort the overall appearance (Jokilehto, 2008, p. 348). (Merriam-Webster Dictionary) Definition of anastylosis: the reconstruction of a monument from falling parts (URL3).

3.2 Restoration

(Oxford Dictionary) the work of repairing and cleaning an old building, a painting, etc. so that its condition is as good as it originally was (URL4). Restore means making up for anything that has already been taken away or lost. Restoration is one of the key concepts in connection with the conservation and protection of cultural heritage and has found special meanings in various fields (Jokilehto, 2008, p. 348). Restoration generally means intervention that makes it possible to recycle the performance of human activity products. The purpose of restoration in practice will be to recycle product performance. Therefore, the nature of restoration work will focus only on achieving this goal. But in the case of works of art, even in cases where they are functional (such as architecture and objects of so-called applied arts in general), restoring the functional nature is a secondary part of the restoration and never a primary or fundamental aspect of respect. Restoration is a methodical moment in which a work of art is recognized at that moment in its physical existence and its aesthetic and historical nature in terms of its transfer to the future. The goal of restoration should be to re-establish the potential unity of the work of art as long as this is possible without resorting to artistic or historical exchange and without removing all traces of the passage of time on the work of art (Hanachi, 2008, pp. 37-41).

3.3 Consolidation

Consolidation, seemingly inattentive and unrelated to the problems we saw in each of the other types of restoration, and pursuing the specific and limited goal of ensuring the ossification strength of the building, is used against the living force of internal functions and external phenomena - from earthquakes and wind and snow forces - to respond to "static" lateral erosive phenomena. Intervention in the physical condition of the building to strengthen and ensure the stability of building complexes is done at the following levels: building materials (reinforcement or local replacements), building elements (strengthening or replacement of weakened or disproportionate element or part), and general skeleton (adding the resistance of the building against internal and external forces, in a general way). Consolidation, especially if it is not based on local interventions and is presented as a general action for the building, provides the best opportunity to intervene in other general features and functions of the building and can cause a change and create a physical change following the new needs of the building. It seems that confirming that the consolidation work is limited to strengthening the structure of the building and replacing the damaged elements or parts of the building means avoiding interfering with other features of the building (Falamaki, 2001, pp. 42-43). Definition of consolidation: the action or process of making something stronger or more solid, the action or process of combining several things into a single more effective or coherent whole (URL5). (Oxford Dictionary) consolidation: the act or process of making a position of power or success stronger so that it is more likely to continue (URL6).

3.4 Supplementary Restoration (as Completing an Unfinished Work)

The supplementary restoration takes place when the building is deficient in some parts. Reconstruction of the lost parts of the ancient building is done to complete the physical existence and function of the building and to participate in the public life of the urban environment. According to the extent and importance of the lack of elements and building parts, and concerning the characteristics of the physical environment and the richness of architecture-culture in the building environment, this type of restoration is one of the most difficult and delicate issues (Falamaki, 2001, p. 41).

3.5 Reconstruction

(Oxford Dictionary) the process of changing or improving the condition of something or the way it works; the process of putting something back into the state it was in before (URL7). New construction is based on historical documents and uses mostly new materials that are likely to be combined with existing historical material (as a witness or historical record). In the "Burra Charter", reconstruction means restoring a place to a previously known state, and its difference from restoration is the import of new materials into the tissue (new materials can include recyclables from other places, but this should not harm the cultural or place prestige) (Jokilehto, 2008, p. 349).

3.6 Safeguard

(Oxford Dictionary) to protect something/somebody from loss, harm or damage; to keep something/somebody safe (URL8). The term is used in a general sense to denote a variety of operations from support to the restoration that is necessary to preserve cultural heritage with respect (Jokilehto, 2008, p. 347).

3.7 Protection

(Oxford Dictionary) the act of protecting somebody/something; the state of being protected (URL9). Legal and administrative procedures are necessary to provide the appropriate conditions for the preservation of a historic monument or a heritage site in its context. It also indicates the necessary technical operations, such as the

construction of a shelter to protect an area or object from human encroachment or atmospheric factors (Jokilehto, 2008, p. 347).

3.8 Conservation

(Oxford Dictionary) the protection of the natural environment (URL10). “The object of conservation is to prolong the life of cultural heritage and, if possible, to clarify the artistic and historical messages therein without the loss of authenticity and meaning. Conservation is a cultural, artistic, technical and craft activity based on humanistic and scientific studies and systematic research. Conservation must respect the cultural context” (ICOMOS, Guidelines for Education and training in the conservation of Monuments, Ensembles and Sites, 1993, Article 3) (URL24). Conservation is a key concept that implies a process that includes the types of operations required to preserve cultural heritage. The scope of such operations may vary depending on the type of legacy involved. Conservation can be used as a technical term to denote the specific improvement needed to extend the life of a cultural heritage site and can refer to restoration, repair, and maintenance projects (Jokilehto, 2008, p. 347).

3.9 Preservation

(Oxford Dictionary) the act of keeping something in its original state or good condition (URL11). In general, it indicates all the necessary operations to maintain the current state of a structure or place and prevent its collapse. In the “Burra Charter”, preservation means the continuation of the texture of a place in its current state and the slowing down of its qualitative decline (Jokilehto, 2008, p. 348).

3.10 Maintenance

(Oxford Dictionary) the act of keeping something in good condition by checking or repairing it regularly (URL12). It means continuous or regular care of the texture and a structure or an area. In the “Burra Charter”, maintenance means continuous and supportive care for the texture and array of a place and must be distinguished from repair because repair involves restoration or reconstruction (Jokilehto, 2008, p. 348).

3.11 Repair

(Oxford Dictionary) to fix something that is broken, damaged, or torn (URL13). The act of restoring a part of a building that is broken or part of it in poor condition to normal condition (Jokilehto, 2008, p. 349).

3.12 Rehabilitation

(Oxford Dictionary) the process of returning a building, place, or area of activity to its previous good condition (URL14). Returning a building or part of a city to its normal state is usually accompanied by new and compatible uses or functions (Jokilehto, 2008, p. 349).

3.13 Revitalization

(Oxford Dictionary) the process of making something stronger, more active, or healthier (URL15). Give new life and function to a thing or an area (Jokilehto, 2008, p. 349).

3.14 Renovation

(Oxford Dictionary) the act or process of repairing and painting an old building, piece of furniture, etc. so that it is in good condition again (URL16). Return something to normal, revive something. In architecture, the purpose is to renew the appearance of the work while the core of the work is ancient (Jokilehto, 2008, p. 349).

3.15 Reorganization

(Oxford Dictionary) the act or process of changing the way in which something is organized or done (URL17). A change in the way you organize or do something (Jokilehto, 2008, p. 349).

3.16 Reuse

(Oxford Dictionary) to use something again (URL18). Reusing something that often serves another purpose is usually a better option than destroying or abandoning it (Jokilehto, 2008, p. 349).

3.17 Rebuilding

(Oxford Dictionary) to build or put something together again (URL19). Rebuild another building or structure due to damage or destruction (Jokilehto, 2008, p. 349).

4. The International Charters for the Conservation of Historic Buildings and Sites

4.1 The "Athens Charter"

By the end of World War I, the 1919 Peace Conference caused the founding of the United Nations, an organization for international participation headquartered in Geneva. Within this new organization, an international committee for intellectual participation was formed, the first meeting of which was convened in 1922. In 1926, the aforementioned committee established the Paris-based Office of International Museums, which included activities such as publishing the scientific "Journal Mouseion" (since 1917), promoting museum-related activities, preserving works of art, and organizing international meetings were on the agenda. Another meeting was held in Athens on October 21-30, 1931 to discuss issues related to the protection of architectural monuments.

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

- 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 of the structures;
- problems of preservation of historic sites are to be solved by legislation at the 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 (URL20).

The "Athens Charter" was chaired by "Jules Destree" General Director of the Office of International Museums and was attended by about 120 delegates from 23 (mostly European) countries, including "Gustavo Giovannoni" from Italy, "Léon-Paul Fargue" (1876–1947), (a French poet and essayist) from France, "Leopoldo Torres Belbas", (a Spanish archaeologist) from Spain, and "Sir Cecil Harcourt-Smith" (1859–1944), (a British archaeologist and museum director) from England. The sessions covered seven main chapters: general strategies and principles, legal and executive criteria, aesthetic aspects, restoration materials, deterioration of monuments, conservation methods, and international participation. Special recommendations were also made for the restoration of the "Acropolis" monuments. The general tendency was to stop stylistic restoration and support the protection and care of monuments by preserving the styles of all periods. The final statement of the conference stated: "regardless of the specific types of cases, each with a different solution, we note that in different countries, there is a general tendency to abandon the restoration completely and turn to the constant maintenance of the building to ensure their protection and conservation. Due to erosion or destruction, restoration seems inevitable, it is recommended not to ignore the style of any period while preserving the historic and artistic works of the past. The congress considers the function and use of the historic buildings are necessary to preserve their historic or artistic identity". Special attention was also paid to the role of society in the protection of historic monuments and even the discussion of extending the appropriate rules of private property, as well as emergencies. Efforts to preserve the monuments in their original place and to preserve their "scenic" identity were also deemed necessary. The use of new technology, such as the use of reinforced concrete, has been confirmed, and it has been considered to cover new reforms to preserve the identity of the historic monument. In dilapidated buildings, the original parts must be placed in the original position by the method of anastylosis and new materials should be identified. To strengthen the principle of protection of historic works of art, an emphasis was placed on international participation, and an international centre was established to document documentaries and popularize public education. The recommendations were communicated to the International Committee of Cultural Partnerships as well as to the member states of the "United Nations". The same recommendations were later applied to the "Athens Charter", which led to a drastic change in attitudes toward historic monuments and was considered the first international document to promote new conservation policies. The "Athens Charter" was an example that was later used by "Gustavo Giovannoni" in setting the Italian standards for restoration (Jokilehto, 2008, pp. 310-311).

"Camillo Boito" declared the issue of replacing architectural concepts with formal and stylistic features in the restoration of historic buildings for the first time. He proposed the creation of new functions and applications in historic buildings, to revitalize them and keep them alive. Theories about the value relationship between historic buildings and the environment or texture around them were proposed by "Camillo Sitte"; the need to use documentary evidence and drawings in the restoration by "Luca Beltrami" (1854–1933), (Falamaki, 2001, pp. 20-21) and the design of two types of scientific and artistic restoration of the dead and the living monuments by "Gustavo Giovannoni" were all in the process of developing restoration theories. The "Athens Charter" reflects many thoughts of "Camillo Boito". The resolution calls on governments to cooperate extensively and permanently in promoting the protection of artistic and historic monuments. Here are some of the highlights of the "Athens Charter" and its goals:

- belief in the use of institutions and groups with skills in the field of restoration without prejudice to public international law;

- saving the masterpieces;
- ways and methods of intervening in historic buildings;
- principles and doctrines for the conservation of historic buildings and monuments;
- special solutions for conservation and symbolizing regular and continuous maintenance of the protection of the historic building;
- respect for historical eras and styles used in historic buildings;
- continuation of the historic monument by giving it a suitable function and use;
- legislation for the conservation of buildings of historical, artistic, or scientific value, special legislation following local conditions, and the state of public opinion;
- emphasis on public (government) officials having special powers to protect historic buildings in an emergency;
- paying attention to the method of anastylosis (placing the original recycled elements in the original place) and the use of new materials and the recognizability of materials used in this operation;
- where it is no longer possible to preserve the finds after the archaeological excavation has been completed, what remains will be buried again;
- paying attention to the mapping or drawing the original plan of the historic monument;
- the use of modern materials to strengthen and consolidate the historic building;
- cooperation between restorers and conservationists of historic monuments, physicists, chemists, and experts in natural sciences, etc. to maintain and operate the historic building;
- do not remove the memorial sculptures from their original location (protection of the original models);
- considering the physical shape of the city, especially in the vicinity of historic buildings (considering the environment for monuments);
- beautifying the environment and creating green space in harmony with historic sites in their vicinity;
- prohibition of affixing any announcement or advertising poster, installation of any electrical poles and telephones, any industrial workshop that produces noise and imposed on the environment, near historic buildings and artistic monuments;
- the need to publish a list of national monuments in different countries by relevant institutions or organizations;
- collecting and archiving documents related to historic monuments by the relevant administration and distributing and using information related to the historic building by this office;
- the best guarantee for the preservation of the historic buildings, monuments, and artworks can be rooted in the compassion and respect of the people, educating the children and young people by official experts to prevent the vandalism and deterioration of the historic buildings and monuments;
- to motivate and encourage children and young people to understand the meaning and concept of historic buildings and monuments and make them interested in protecting and supporting this evidence of civilization.

Even in Article 68, which refers to the reorientation of vital lines of movement and relocation of centres in the historic context, these measures are proposed looking at single historic buildings (architectural values) and their purpose is to preserve and the protection of valuable historic architecture or historic monuments. Article 69 refers to the demolition of slums around historic buildings, Article 70 refers to the non-use of past styles in new buildings, and Article 82 states that: scientific urban planning is not two-dimensional but three-dimensional. By using the element of height, a solution for modern traffic will be found, and even by using the free spaces that are obtained, a solution will be found in recreational and leisure activities. In general, in the discussions and materials raised in the "Athens Charter", except for Articles 70 and 82, almost all of its approved materials relate to how to deal with a single monument or historic building, which is the main subject of this resolution (Moradi, 2006).

4.2 The "Venice Charter"

In 1957, "UNESCO", together with high-ranking French officials, held an international meeting with architects and technicians in charge of historic monuments. About 25 countries participated in the meeting, and topics such as the need for multidisciplinary participation and expert training were emphasized. The French also criticized the use of modern elements in oversimplified form, which differed greatly from the original decorative designs. Following the meeting, the Italian government invited conservation technicians and architects to a meeting on May 25-31, 1964, attended by more than 600 people from 61 countries and representatives of international organizations, "UNESCO" ("The United Nations Educational, Scientific and Cultural Organization"), "ICOM" ("International Council for Museums"), "ICOMOS" ("International Council for Monuments and Sites"), and the "Council of Europe". The important result of this meeting was the drafting of the "International Charter for the Protection and Restoration of Monuments and Sites", known as the "Venice Charter", which is considered a revised form of the "Athens Charter" in 1931. This charter was drafted based on Italian standards and the declaration of "Gustavo Giovannoni". It also reflects the current debate among advocates of conservation and restoration (URL21).

Although "buildings" were still emphasized, the concept of "historic monument" was generalized to include historic urban and rural areas, and the division of monuments into "living" and "dead" was considered unfounded. The concept of architectural cohesion received special attention at the "Venice Charter", but at the same time, historical originality and integrity were emphasized, especially since in the post-war period, stylistic reconstructions were overemphasized. Several speakers emphasized the inherent nature of any cultural heritage site, emphasizing the fact that a charter could only serve as a guide and could not be considered a legally binding alternative without criticism. The "Venice Charter" was adopted the following year as the main guiding document by "ICOMOS", which was founded in the same year. The "Venice Charter" has been translated into many languages of the world and has led to the issuance of charters, and the issuance of numerous other recommendations and instructions on various aspects of the protection and conservation of cultural heritage. On the other hand, this charter is considered the main reference for the assessment of heritage sites for inclusion in the "UNESCO World Heritage List" (Jokilehto, 2008, p. 315).

4.3 The "Burra Charter"

One of the most well-known documents inspired by the "Venice Charter" is the "Burra Charter" (URL22), drafted in 1979 by "ICOMOS Australia", and edited in 1981, 1988, 1999, 2004, and 2013 (URL23). The "Burra Charter", while relying on the "Venice Charter", introduces the concept of "place" instead of "monument and neighbourhoods"; in other words, it emphasizes the less tangible aspects of cultural importance, the connections and meanings that places have for people, and the need for people to participate in the decision-making process. However, it's necessary to point out that the purpose of such a comprehensive charter should be well understood and should not be used merely to justify its applications (Jokilehto, 2008, pp. 315-316).

5. Conclusions

"Gustavo Giovannoni", a successful Italian architect and restorer, established "scientific restoration" and introduced the principle of pruning by completing and refining the theories of "Camillo Boito". He proposed a theory for the modernization of historic sites by observing their old identity, keeping away the main circulation paths from historic sites, preventing them from being cut off by the streets, improving social and health conditions, and protecting historic buildings by destroying the less important structures to create space. He considered the theory of "Eugène Viollet-le-Duc" to be unscientific and to cause distortions and arbitrary interventions. But like "Camillo Sitte", he emphasized visual values and sudden surprises due to the contrast between the magnificent palaces and the "minor architecture" and the architectural order, which must be studied obsessively. Influenced by the theories of "Camillo Boito", which distinguished between the old style and the new style used to regenerate a historic monument, he saw a conflict between the two concepts of life and history. Life means meeting the requirements of modern development and life, and history expresses the observance of historic and artistic values and the environment of ancient cities. The city has developed over time and different styles have been represented in different eras. According to "Gustavo Giovannoni", the main goal should be to preserve the originality of the structure and observe the whole artistic life of the memorial, not just its identity in the early stages of construction. Any subsequent additions must be dated and viewed more as an integral part of the whole mass than to decorate it. "Gustavo Giovannoni" recommends documenting based on reliable data. He also believed that in modern times, due to the lack of a modern and appropriate style and the lack of sensitivity to their use, architectural forms are not successful. He emphasized conservation, repair, and consolidation, and considered it permissible, if necessary, to use new technology when consolidating. "Gustavo Giovannoni" like "Camillo Boito" preferred that the restorations not be visible by using modern methods and technology, such as the use of cement mortar or invisible metal or reinforced concrete structures as protection in case of an earthquake, but he did not approve of the excess of modernization that caused the structure to be damaged, which is not permissible according to him. His 4 important principles are 1. strengthening, 2. anastylosis, 3. liberation, and 4. completion or modernization. A meeting was held in Athens in October 1931 to discuss issues related to the preservation of architectural monuments, attended by "Gustavo Giovannoni" representing Italy. The sessions covered seven main chapters: general strategies and principles, legal and executive criteria, aesthetic aspects, restoration materials, deterioration of monuments, conservation methods, and international participation. This charter was drafted based on Italian standards and the declaration of "Gustavo Giovannoni".

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Conflict of Interests

The author declares no conflict of interest.

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