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# A Preliminary Study for the Knowledge Process: Pier Luigi Nervi's Taormina Stadium

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## Abstract

The article highlights the fragilities of a specific category of 20th-century heritage, namely football stadiums. These architectures are even more vulnerable as they are subject to continuous regulatory and performance adjustments that clash with the building's cultural, historical, and technical values. Therefore, there is a need to raise awareness of the protection of these architectural works so that interventions can be carried out that combine technical innovation and heritage conservation.

The paper provides a synthesis of the research conducted on football stadiums designed and built by Pier Luigi Nervi, in collaboration with his son Antonio, in Italy's second half of the 20th century. The analysis was carried out on various levels to grasp their specificities, understand their current state, and make the necessary comparisons to identify a case study for further evaluation. The Taormina stadium is a unicum concerning the others considered, both for its compositional and structural components and for additional vulnerabilities that denote it and, at the same time, constitute an exceptional example. Archive research and field investigations outline this architecture's original characteristics and current state of conservation. This process of anamnesis shows how awareness-raising assumes a fundamental role in assisting the different competencies involved in preserving these assets.

**Keywords:** Architectural fragility, Concrete degradation, Football stadium, Modern architectural heritage, Pier Luigi Nervi

## 1. Introduction

The various epistemological discussions seem not to deal with the complexity of the very essence of heritage and the most appropriate methodologies for its protection. Cultural heritage appears not to be considered unambiguously, as if there were a dividing line between monuments belonging to Antiquity, which are universally acknowledged and therefore to be protected, and the 'other' monuments, which, due to the absence of historical distance and to interpretative difficulties, are subject to judgments of merit on the quality or integrity of being heritage. The need for more safeguarding and the critical issues arising from the buildings' complexity and, consequently, the actions to be taken are added to the discrepancy in the value recognition [1]. Furthermore, it is evident how the mutation of terminology and the indiscriminate use of terms, such as transformation, recycling, and reuse, elude the very meaning of the words conservation and restoration [2] and generate confusion in the purposes of protection and in the tools for identifying and protecting heritage values. Thus, it is noticeable that interventions on existing built heritage are complex actions whose governability is directly proportional to the degree of knowledge and the ability to read the built environment to reunite the asset with the values it carries.

In twentieth-century architecture, the close distance between the authors of the work and the authors of the intervention allows for design possibilities that also presuppose, in some cases, the posthumous execution of incomplete parts or the restoration to their original form for those parts that have deteriorated. This fragility is directly related to the material, making the interventions in architectures realized through technological innovation particularly complicated. Their experimental character has often been betrayed by time, leading to the rapid deterioration of these new materials. This heritage has been "neglected by Italian legislation" [3] and is treated in the same way as coeval buildings, for which interventions are carried out to meet firstly current conformity requirements. In addition, the amendments to the "Codice dei Beni Culturali e del Paesaggio" with the Italian Decree Law 70/2011 shifted the time constraint from fifty years to seventy years, exposing much of the heritage of the Modern to compromise further. The

51 fragmentation of the unity of heritage is also evident in the case of sports facilities. The ratification of Article 55 bis of  
52 the Italian Law Decree 76/2020 - known as the “sblocca-stadi” amendment - acts as a backlash to many of the articles  
53 of the Italian Legislative Decree 42/2004 and Article 9 of the Constitution itself, allowing exceptions to the safeguard  
54 procedures. What emerges is the lack of a total and general vision of the national cultural heritage and the dangers to  
55 which it may be subjected, admitting exceptions to the basic principles of protection with consequent threats of  
56 widespread demolition and denaturalization.

57 The emblematic incident of the “Artemio Franchi” stadium - formerly “Giovanni Berta” - in Florence highlights the  
58 fragilities that characterize the specific category of sports facilities. Since 2020, the stadium has been, and still is, the  
59 protagonist of a controversy that began with the hypothesis of its transformation – with the possibility of extensive  
60 demolition - raising the alarm on how cultural heritage should be managed. The function of these architectural structures  
61 in their survival and risk of compromising their testimonial value. Constantly updated compliance requirements often  
62 justify intervening with radical transformations or decommissioning iconic structures that can no longer meet economic  
63 and management needs. When abandonment occurs, the size of these structures makes it even more challenging to  
64 identify functions other than the original ones, inevitably leading to demolition or abandonment and, thus, erasure.  
65 In Florence's case, the recognition of this architecture as a masterpiece and the authorship of Pier Luigi Nervi's project  
66 do not imply greater attention to protection; on the contrary, the administrations have entirely ignored these values. The  
67 same happened with the Flaminio stadium in Rome, decommissioned between 2011 and 2012 and still awaiting a valid  
68 restoration project. In 2017, a Conservation Plan was drawn up and financed by the Getty Foundation as part of the  
69 “Keeping It Modern” program [4]. This also led to its preservation and revealed the severe state of decay in which the  
70 stadium finds itself due to the improper interventions carried out on some parts of its structure. Concerning the other  
71 stadiums designed and built by Pier Luigi Nervi in Novara and Taormina (Fig. 1), the paternity of the former has been  
72 attributed exclusively to his son Antonio, while the latter is often not considered among Nervi's works and also for this  
73 reason almost entirely unknown.  
74

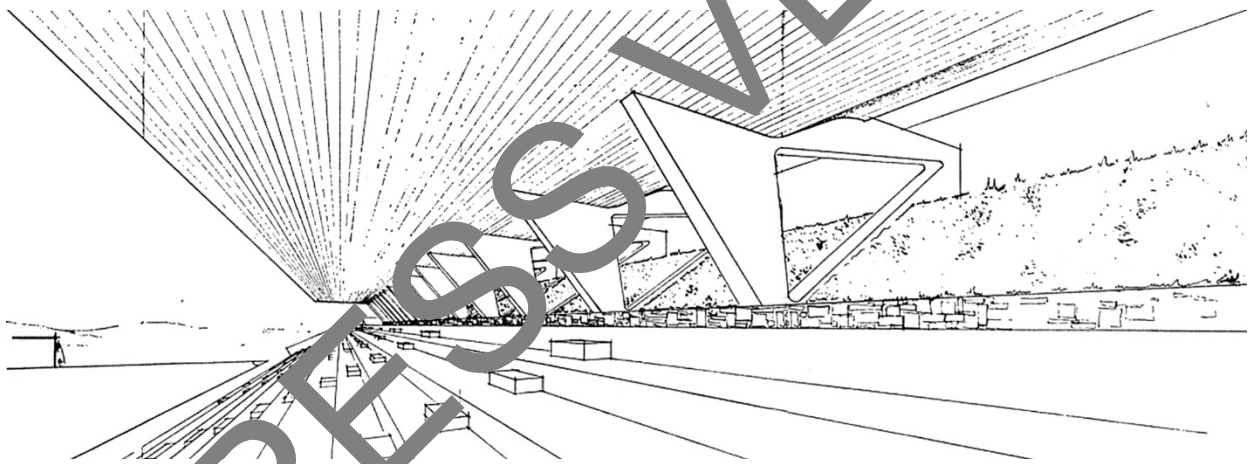


Fig. 1 Sketch of the Taormina Stadium - © 1958, Architectural Record 12

## 75 2. Method

76 The research focuses on stadiums designed by Pier Luigi Nervi. The stadiums were built during the post-World War  
77 II period in the context of the Italian engineering sector, which was characterized by a new architectural language made  
78 of innovation and experimentation on reinforced concrete systems. The construction manifested the constraints from  
79 the previous autarkic period when the choice of materials was linked to the need to use only national products. Steel  
80 had to be used moderately, making it necessary to optimize the structures. The reduction of reinforcing bars, structural  
81 weights, and resistant sections, as well as the use of the arch to realize large spans persisted even later, representing the  
82 architecture of the years of the Italian economic miracle.

83 The Italian engineering sector assumed a leading role thanks to Pier Luigi Nervi, who could perceive the  
84 correspondence between structure and form through its manifestation in reinforced concrete. His first internationally  
85 acclaimed work, the “Berta Stadium” in Florence, represented a curved structure shaped by the masterly use of its  
86 material. In the second half of the century, Nervi conceived a new way of building that would later become an authentic  
87 style, a system capable of being aesthetically, economically, and temporally practical simultaneously. Eliminating the  
88 wooden formwork and reducing the thickness of the elements to limit the use of material, the originality of Nervi's

89 system is expressed in the organization of the construction area divided into parts on-site where the skeleton of the  
90 architecture - excavations, foundations, pillars - is built. Another characteristic of prefabrication is that it creates all the  
91 elements that, when assembled, recombine the structure into a monolithic structure. In football stadiums, Nervi applies  
92 his way of “building correctly” [5], bringing out his *modus operandi* in synthesizing technique and aesthetics. Giuseppe  
93 Perugini defined this binomial as “form-structure” [6], where the term structure is identified and associated with the  
94 concept of functionality [5]. This binomial finds a practical application in sports facilities as buildings determined by  
95 the decisive role of design. Form, technique, and function are interconnected and discovered through the construction  
96 possibilities offered by reinforced concrete.

97 The analysis was conducted starting from the protection and preservation systems inherent in the designs of three  
98 stadiums signed by Nervi (Fig. 2): the sports center stadium in Taormina (1955- 1960), the Flaminio stadium in Rome  
99 (1956-1959) and the municipal stadium in Novara (1964- 1976). After the famous Berta municipal stadium in Florence,  
100 these stadiums resulted from the collaboration with his son Antonio, with whom he founded the “Studio Nervi” in 1954  
101 to join the “Nervi & Bartolini” design studio. These are typologically innovative sports facilities where a significant  
102 role is taken by technical and structural achievement and with particular attention to aesthetic expression [7]. The  
103 Florence Stadium, even if it was mentioned at the starting point for the discussion, is not included in the study as it is  
104 chronologically earlier, designed by Pier Luigi Nervi without the collaboration of Antonio, and extensively covered  
105 with the discussions on the dangers of demolition.  
106

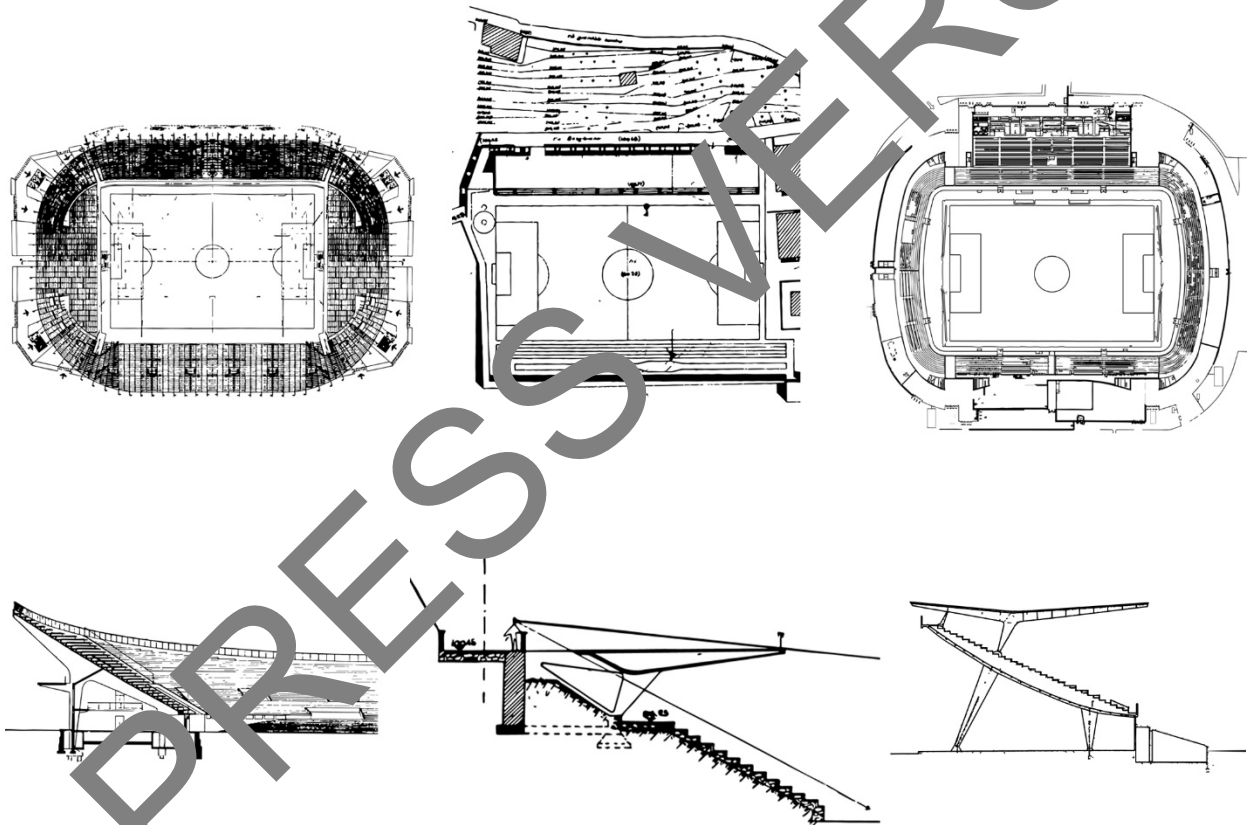


Figure 2 – Sketch of plans and sections of the three Nervi stadiums in Rome (left), Taormina (center), and Novara (right) - © 2024, drawing by the Authors

108 The three stadiums have been investigated by defining categories of analysis, which are necessary to understand the  
109 complexity of the individual architectures and compare them. For example, in addition to the year of construction and  
110 the authors, the following are also considered: the competition announcement and the constraints imposed by the client;  
111 the project and the location; the planimetric configuration, including the capacity and the compositional characteristics;  
112 the structural choices, embracing the prefabricated elements designed; the development of the construction site; and  
113 the current state of conservation and degradation. In the case of the Flaminio stadium in Rome, the characteristics of  
114 the asset were recognized and protected thanks to the joint action between the Municipality of Rome, Sapienza

115 Università di Roma, “Pier Luigi Nervi Project” Foundation and “Do.Co.Mo.Mo. Italia” with the support of the Getty  
116 Foundation. To date, the stadium is in a state of neglect. It is particularly subject to degradation - due to  
117 decommissioning and the physiological aging of materials and equipment - although a conservation plan and restoration  
118 project have been drawn up, which still need to be implemented. In the case of Novara, the football club announced a  
119 competition to construct a new multi-purpose stadium; the “Andra Maffei Architects” studio, the competition's winner,  
120 proposed an *ex-novo* project, keeping the west part standing as the only original element. The Taormina stadium is still  
121 partly used by the local football club. It is in a limited state of decay and has not been subjected to any interventions,  
122 so it was chosen as the object of the following investigation. The case study analysis was conducted through an  
123 anamnesis of the archival documentation and an on-site inspection based on Coppola and Buoso's methodology. In  
124 particular, this methodology identifies the objectives to be pursued when undertaking maintenance work on reinforced  
125 concrete structures. These are general objectives regarding restoring structural safety, use function, and aesthetics, and  
126 specific objectives regarding degradation mechanisms [8].

## 127 2.1 Preliminary analysis

128 The Flaminio stadium represents the first outcome of the change in Pier Luigi Nervi's professional activity. The  
129 stadium was built for the 1960 Rome Olympics, replacing Marcello Piacentini's previous National Stadium (1911). The  
130 pre-existence became a condition of constraint in the call for tenders: to fit into the tight time schedule - given by the  
131 demolition time of the pre-existence (between July 1957 and December 1958) and the construction site (within the  
132 following 18 months) - and to preserve the playing field and not to move out of the original area, it was unfeasible to  
133 adopt a totally “crescent” shape [9]. Thus, Nervi designed a ring-shaped grandstand surrounding the playing field to  
134 centralize the considerable number of seats on the straights corresponding to the field's length. The seats are standing  
135 and seating, the latter uncovered and covered. In particular, the covered seats are protected by a cantilever roof to the  
136 west. A further constraint of the competition notice was the realization of autonomous services. The swimming pool  
137 and gyms for boxing, weightlifting, and heavy athletics were built on the lower level of the west straight; gyms for  
138 gymnastics and fencing were constructed below the east straight [10]. The public's accessibility to the grandstands is  
139 guaranteed by two pincer staircases that disengage the café and toilets and the cantilevered external galleries: the last  
140 ones were built to provide easier distribution of spectators to the various *vomitoria*. Independent entrances are designed  
141 to welcome the authorities. From a structural point of view, Nervi proposed a solution with ninety-two reinforced  
142 concrete frames with two hinges and a center-to-center distance of 5.70 m, whose section has a constant shape and  
143 adapts to the various multi-purpose areas, varying in height and width over the entire curvilinear field. In addition,  
144 innovative technical experimentation allowed for the construction of the bleachers and the cantilever roof of the west  
145 stand with prefabricated reinforced concrete elements. The frame of the stadium's load-bearing structure, which has no  
146 cladding or plaster and is realized through wooden formwork composed of planed and tapped staves, is connected by  
147 secondary ribs and the prefabricated structures of the bleachers. The site was developed in two autonomous, parallel  
148 locations: in the first, *in situ*, the foundations in Frankie piles (length: 10 m;  $\phi$ : 55 and 35 with load-bearing capacities  
149 of 90 and 55 tonnes), and the structural frames were cast; in the second, in a neighboring area, the prefabricated elements  
150 were built and then gradually assembled on-site. This process synthesizes technical solutions capable of building  
151 quickly and economically thanks to the elimination of the wooden formwork for the prefabricated elements and the  
152 reduction of the thickness of the resistant aspects, permitting the containment of material costs [11].

153 Simultaneously, in those years, Nervi designed and supervised the construction of the Taormina stadium. Smaller in  
154 size than the Flaminio, it was a facility resulting from the administration's need to build a new stadium in the area of  
155 the old playing field. The main constraints were related to the small total surface area and the inclusion of the facility  
156 within a highly characterizing historical landscape context. In this regard, Nervi combines respect for the existing  
157 context with structural components with innovation, and this integration represents a distinctive expression of Nervi's  
158 innovative vision in architecture and engineering. From a compositional point of view, the football pitch is flanked to  
159 the north and northeast (seaside) by the athletics track and a tiered seating area cantilevered from the retaining wall.  
160 Two covered bleachers above the south grandstand have been placed on the opposite side (street side), accommodating  
161 both standing and seating. These seats were designed below street level to create a viewing terrace above the canopy,  
162 providing additional space for the overflow spectators. It was designed and built to open up the view of the playing  
163 field and the surrounding landscape for spectators while sheltering under the covering - thanks to the reduced size of  
164 the front grandstand - and for anyone standing on the viewing terrace. The sports facility adapts to the terrain, and the  
165 bleachers on the side opposite the sea make the landscape a theatrical backdrop [12]. Finally, the respect for the context  
166 was also manifested by the choice to use local materials - grey stone - for the cladding [13]. From a structural point of  
167 view, this cantilevered square was created using the technical and technological innovation applied to the reinforced  
168 concrete canopy. The section has a curved slab resting on eighteen triangular cantilevered brackets of 8.50 m (placed

169 with a 5.7 m spacing) resting on pillars that intersect in the ground, where each frame is connected at the rear to the  
170 retaining wall. Thus, it provided for the creation of a balanced system, avoiding tipping over towards the valley. The  
171 ceiling is an overall volume consisting of two parts: an upper part in reinforced concrete and bricks that extend over a  
172 large part of the carport and a remaining part built only in reinforced concrete. The canopy is 3.5 m away from the rear  
173 wall. In 1955, the Nervi studio integrated an expansion joint in the structural part and four shelf beams inserted in the  
174 curvilinear part of the interpreted slab to interrupt the critical length of the long side, avoiding modifying the frame  
175 section and the original design [14].

176 The last stadium, dating back to the 1970s, is in Novara. The contract was awarded by “Nervi & Bartolini” design  
177 studio through an invitation-only tender. Studio “Nervi & Bartolini” designed the project to replace the existing stadium  
178 to maximize the available space. The plan was more linear and pragmatic to permit the possible expansions, as was the  
179 the Rome stadium: the non-use of the crescent solution allowed for additional grandstands positioned above the existing  
180 ones, offering greater flexibility in the design and expansion of the stadium [15]. This sports facility has a symmetrical  
181 rectangular plan with two straights along the length, housing the covered and uncovered stands, and two curves along  
182 the width with the remaining seats. Nervi designed the structure with economy and compositional charm, placing  
183 the curves on a gravel layer and ensuring the contrast between the turf and the reinforced concrete walls was attractive.  
184 Above the straights made of a concrete slab, the inclined grandstands were located at the highest point (10.5 m). These  
185 consist of a repetition of reinforced concrete trestle frames lying on an inclined beam, curving on the intrados and with  
186 steps cast *in situ* on the extrados, where the seats rest. Both the inclined beams and the seats are made of prefabricated  
187 elements. Two pillars support the beam, an inner one on the field side and an outer one at the highest point. Thanks to  
188 prefabricated elements, the configuration of these frames, determined by static requirements, is easily repeatable. As in  
189 the Flaminio stadium case, there are dedicated spaces below the stands - changing rooms, toilets, and two gyms - and  
190 external pincer staircases and walkways to access the rooms. A grit finish was planned for the cladding, which was not  
191 realized because it was considered redundant.

192 The three stadiums analyzed represent architectural *unicum*, where Nervi's signature is evident in all structures. As  
193 illustrated in the following table, the comparison between the three stadiums highlights how the Taormina stadium is  
194 an isolated case compared to the other two: in fact, the design of the Novara stadium is more easily comparable with  
195 the Flaminio in terms of design choices, such as the presence of a similar subdivision between the grandstand and the  
196 parterre, but also for some of the technical solutions mentioned above. The substantial difference is noticeable not only  
197 from a compositional point of view - with a plan that is more rectangular than ring-shaped - but also from a structural  
198 point of view, evident in the compositions of beams, pillars, and frames.



Figure 3 – The Nervi's skills emerges between fragility and degradation - © 2021, Authors

## 200 Results

201 In the case of Taormina, there are further specific vulnerabilities (Fig. 3) characteristic of football stadiums, in  
202 addition to the criticalities typical of the Modern heritage. Several reasons lead to assimilating the stadium into a minor  
203 work [16]. The first is that, compared to the stadiums in Rome and Novara, it is smaller in size, designed to hold up to  
204 a maximum of 3900 spectators (Tab. 1). The second is that this stadium has been little studied and, at times, excluded  
205 from the scientific literature, being the subject of interest only of authors Antonino Marino and Laura Marino [14]. A  
206 third reason is the lack of interest in heritage protection from organizations and associations.

	<i>Stadium of Rome</i>	<i>Stadium of Taormina</i>	<i>Stadium of Novara</i>
Year of construction	1959	1960	1976
Authors	Pier Luigi e Antonio Nervi	Pier Luigi e Antonio Nervi	Pier Luigi e Antonio Nervi
Project constraints imposed	- Preserving the field - Respect the area of occupation of the previous stadium - Tight deadlines for the demolition of the old stadium (18 months) and the closure of the construction site (18 months)	- Respect the area of occupation of the previous stadium - Respect the landscape	- Respect the area of occupation of the previous stadium
Projected seats	42000	3900	25000
Planimetry (Fig. 2)	Ring implant without <i>crescent</i> shape, athletics tracks and possible expansions	Two-straight track associated with a theatre with athletics tracks (on the long north-north-east side) and grandstand (on the opposite side)	Rectangular layout based on two straights and two curves without <i>crescent</i> shape
Compositional characteristics	Presence under the stands of a lower floor with swimming pool, gyms (boxing, weightlifting, heavy athletics, gymnastics and fencing) and service rooms	- Openness to the landscape - Rooftop open square in case of surplus - Dual view for spectators (panoramic and field view)	Presence under the stands of a lower floor with two gymnasiums and service rooms
Structural section	92 frames with non-repeatable 2 hinges (constant shape, variation in height and width)	18 triangular brackets on which the curved floor of the canopy rests	Repeatable gantry frames
Shelter	Cantilevered roof positioned on the grandstand	Cantilevered roof positioned on the grandstand and square open to the landscape	Cantilevered roof positioned on the grandstand
Stairs	Pincer exteriors with cantilevered balconies	Integrated into the grandstand	Pincer exteriors with cantilevered balconies
Main finishing	Exposed concrete	Exposed concrete	Exposed concrete
Prefabricated elements	- Roof - Stands	- Roof	- Seats - Soffit inclined beam of structural frames
Construction site	Developed in two parts	Developed in one part	Developed in two parts
Actual state (2024)	Abandoned and subject to severe degradation	Partially functional and prone to degradation	New project in progress

Table 1 – Comparison of the three Italian stadiums analyzed by Pier Luigi and Antonio Nervi - © 2024, Authors

Among them, it's worth mentioning the absence of this stadium on the portal of the "Pier Luigi Nervi Project" Foundation, dealing with preserving the patrimonial memory of Nervi's works. This knowledge gap also impacts the local community, which needs to be aware of its values and recognize it as heritage. The stadium cannot be visited and is not indicated on any itinerary. Moreover, its use for sporting purposes is restricted to the local amateur football club, whose limited availability of funds does not guarantee its adequate management and maintenance. The only project concerning the stadium maintenance was in 2023, funded by the National Recovery and Resilience Plan, for resurfacing synthetic turf and the energy efficiency of the facilities (Unique Project Code: E84H22000500001). Also, the Taormina Stadium must still reach the seventy-year Legislative Decree 42/2004 protection bond requirement. The area where it stands - classified as an "F3 Sports Zone" - has hydrogeological, geomorphological, and seismic risk level 2 restrictions. The absence of constraints or protection can be dangerous, especially when considering an intervention that does not take the form of restoration since any action is left to the sole sensitivity of the designers. Consequently, the stadium is subject to potential risks of alterations that could compromise its value transmission. Nervi was aware that the architecture of the time would not withstand five hundred years [17] and therefore questioned the durability of materials, particularly the resistance of reinforced concrete to thermal expansion. Aware of the critical issues related to the construction system, the engineer put in place solutions - for example, the need to keep the steel of the concrete reinforcements away from the external surface - which kept the Taormina stadium in a discrete state of preservation, beyond the widespread degradation due to aging and lack of maintenance plans.

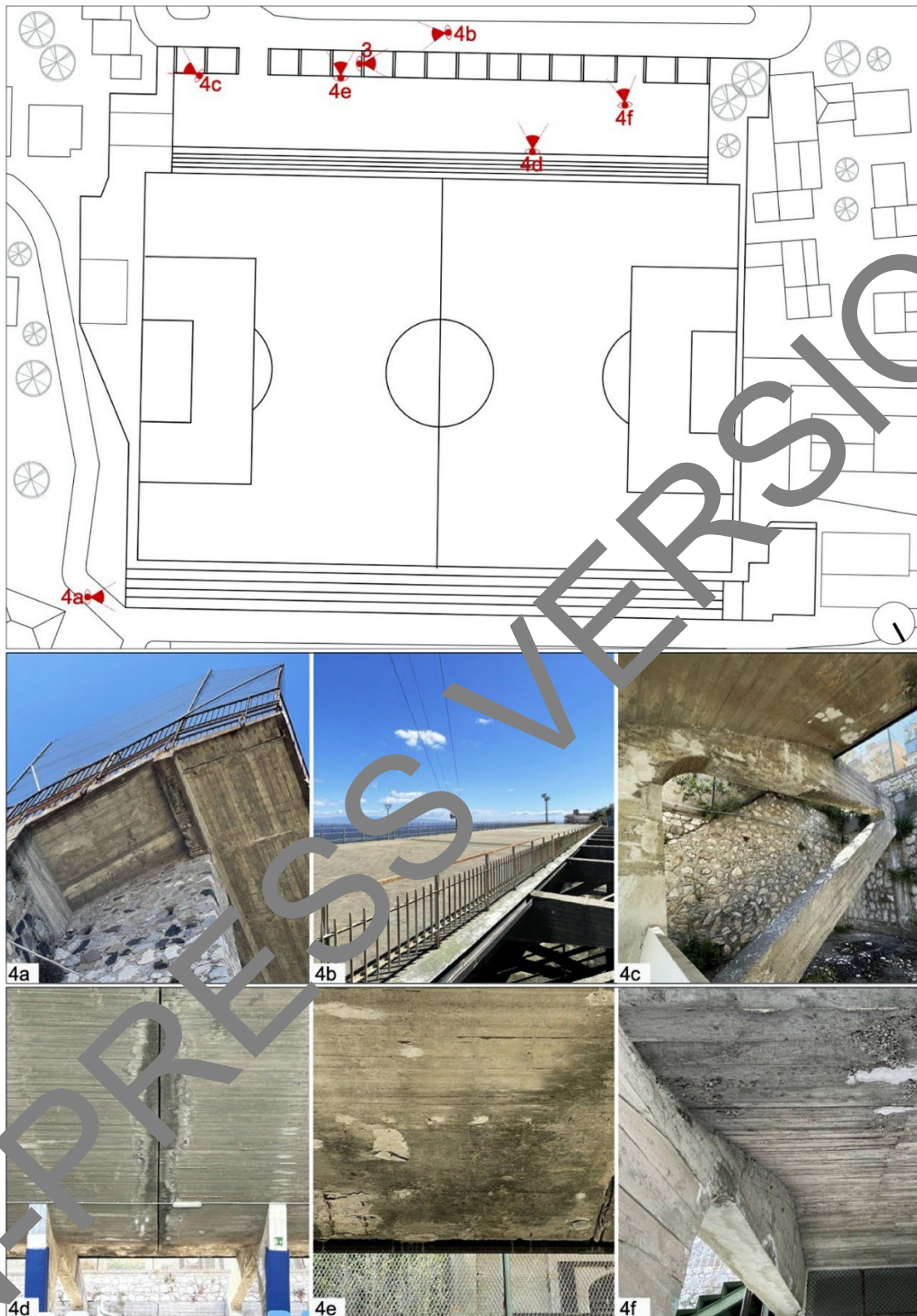


Figure 4 – Details of the degradation and location in the floor plan: (a) the north stand in structural decay, (b) the abandoned terrace, (c) aesthetic degradation from incorrect patching and vegetation, (d) degradation at the structural joint, (e) lack of concrete and spalling, (f) construction defects such as honeycombs - © 2021, Authors

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229  
230  
231

In April 2021, an on-site inspection was conducted to study the actual state of the stadium, and it appeared to be in good condition from a structural point of view. However, it presented criticalities that prevented its use during the survey. The following description of the detected pathologies is referred to the Italian standard “UNI 11182:2006 Beni Culturali” (former “Normal 1/88 ICR-CNR”).



232 The north stand is cantilevered and has reduced thickness (Fig. 4a), which shows damage due to pull-out phenomena  
233 that expose the reinforcement bars and have caused cracks and localized corrosion decay. In addition, it shows  
234 significant degradation due to increased exposure to weathering. The south grandstand presents problems that also  
235 impact the functional aspect: the terrace above the roof cannot be used for the heavily degraded flooring and the  
236 corroded metal parapets (Fig. 4b). Other problems are related to poor or inadequate maintenance, such as weed  
237 vegetation and inconsistent patching with cement mortars (Fig. 4c). Problems related to water exposure have caused  
238 efflorescence, discoloration, delamination, and cracking, particularly at the three structural joints of the south stand  
239 roof (Fig. 4d). In several places, material *lacunae* and small localized spalling phenomena are also evident where the  
240 ceiling reinforcement cover is thinner (Fig. 4e). Finally, sporadic honeycombs are evident (Fig. 4f). All of these  
241 elements contribute to an evolving cracking and degradation process that, over time, could alter the very stability of the  
242 structure. The sports facility generally does not meet regulatory requirements regarding fire prevention and removing  
243 architectural barriers.

244 This study aimed to highlight an architecture largely unknown to date that reveals features of patrimonial value that  
245 are not manifest. The anamnesis of the building's history was possible thanks to the consultation of archival material  
246 kept at the technical office of the municipality of Taormina. The comparison between the current state of the stadium  
247 and the executive drawings in the archives, the technical reports, the sheets of materials used, and the correspondence  
248 between those in charge of the project made it possible to reconstruct an accurate knowledge of the property. The  
249 inspection allowed a preliminary mapping of the degradation present and is configured as a first step for a future detailed  
250 survey, through which non-destructive testing (NDT) will be carried out to assess the residual helpful life [18].  
251 Subsequently, collecting all the data will permit the evaluation of suitable interventions within the framework of  
252 conservative restoration.

#### 253 4. Conclusions

254 The Taormina case is emblematic as it illustrates the many fragilities that often characterize sports facilities. To this  
255 day, the Sicilian stadium partially maintains its function. Despite this, it highlights problems, offering the possibility to  
256 reflect on feasible restoration projects that can bring out the work's valuable qualities and allow for adequate  
257 maintenance work. Knowledge of conservation also assumes an understanding of the concept of heritage and its  
258 recognition. Therefore, it is essential to contemplate further the performance adjustment defined in the current  
259 regulations when dealing with components that lack the initial evaluation phase, as discussed by Bardelli [19]. Design  
260 interventions should be guided by greater attention to the phase of historical-material knowledge of the building. This  
261 guarantees an understanding of the cultural heritage and leads to value recognition and, therefore, to subsequent  
262 protection, even when not linked to a binding regime. The Taormina stadium shows fragility, which is evident in the  
263 widespread lack of recognition of Pier Luigi Nervi's work. In the case of Novara, this oversight extends to the  
264 misattribution of the project's authorship solely to his son Antonio, with no mention of Pierluigi Nervi. Conversely, the  
265 definitive identification of the designer behind the Flaminio stadium has significantly contributed to the building's  
266 recent protected status. However, there are still many challenges related to its restoration. This study aimed to initiate  
267 a knowledge process that could be the base for future interventions concerning the Taormina stadium. Identifying  
268 additional vulnerabilities resulted in its classification as minor work, leaving the Sicilian sports facility even more  
269 susceptible to risk than the others under consideration. In this context, the words of Dezzi Bardeschi, "not only to know  
270 to conserve, but also to conserve to know" [20], are highly pertinent for the preservation of this architectural typology.  
271 These words aimed to raise awareness among public administrations and the community by exploring viable solutions  
272 through scientific research. By acknowledging the value of the work, scholars can initiate processes that increase  
273 consciousness within the local community. This plays a crucial role in addressing the challenges associated with  
274 restoring the most fragile buildings, which are still unresolved today. It emphasizes the necessity for a "case-by-case"  
275 approach to intervene based on the specificities of each of these architectural structures. Collaboration among experts  
276 is essential to uncover all relevant characteristics through research and harmonize strategies with stakeholders to  
277 preserve and transmit the heritage to future generations.

## 279 5. Author Contributions

280 Conceptualization, F.V.; Methodology, A.R.; Investigation, G.D.M.; Writing – Original Draft Preparation, G.D.M.;  
281 Writing – Review & Editing, F.V. and A.R.; Visualization, G.D.M. and A.R.

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