Research article

Intervención

JULIO-DICIEMBRE 2024
JULY-DECEMBER 2024

Criteria and Restoration Methods Used by Juan Manuel Zapatero and Francisco Prat in the Hispanic-American Fortifications of the Caribbean

Ir a versión en español

DOI: 10.30763/Intervencion.304.v2n30.83.2024 • YEAR 15, ISSUE NO. 30: 237-271

Submitted: 11.06.2024 • Accepted: 27.11.2024 • Published: 30.04.2026

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ABSTRACT

Juan Manuel Zapatero and Francisco Prat were forerunners in the rescue and restoration of the main Hispanic-American fortifications in the Caribbean, built between the 16th and 19th centuries, one of America's greatest heritage legacies, that of military engineering, which in the mid-20th century was in a significant state of abandonment. Work to characterise, authenticate, locate and date the fortresses geographically as architectural cultural assets was incipient.

The objective of this analysis is to determine whether the criteria and procedures used in the work of both authors correspond to the principles promulgated by the influential theories of modern restoration in force during the first half of the 20th century, given the confluence of their parallel life trajectories and professional objectives. The analysis of the interventions carried out by Zapatero and Prat shows the existence of a broad concordance between the methodology used and the principles established by the theories of *scientific restoration*. This justifies the contrasted coincidence and aesthetic similarity of their works, based on an expressed mutual admiration.

KEYWORDS

Architectural restoration, Hispanic-American fortifications, Juan Manuel Zapatero, Francisco Prat, criteria and methods, intervention techniques.

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INTRODUCTION

The present study aims to determine the correspondence between the criteria and methods established in the works of Juan Manuel Zapatero and Francisco Prat and the most influential principles put forward by the theories of *scientific restoration*. Due to their contemporaneity, these theories were also the most decisive in shaping the formative and professional trajectories of both authors.

The study also presents the lives and works of the two figures, as well as their training within the national and international context of monumental restoration. On the one hand, Zapatero advised on the restoration of major fortifications in San Juan, Puerto Rico, and Cartagena de Indias, as well as other important fortresses in the United States, Peru, Panama, Honduras, and Venezuela.[1] On the other hand, Prat focused on the restoration of Cuban fortifications.[2]

The methodology for this research was based on an analysis guided by the representativeness of the projects and by the most descriptive and relevant written documentation available.

Zapatero's case was examined through the detailed technical information contained in the advisory studies:

- For Cartagena de Indias: Restoration and Rehabilitation of 16th-18th Century fortifications, 1967.
- For the Restoration and Museographic Rehabilitation of the San Lorenzo el Real de Chagres Castle, 1985.

Prat's case was examined thanks to the detail of the technical information presented in the consultancy:

- Report on the Restoration Projecto of San Pedro de la Roca del Morro Castle in Santiago de Cuba, 1960.

[1] He advised on the restoration of the following sites: the San Felipe del Morro y San Jerónimo del Boquerón Castle (Naval Military Museum) in San Juan, Puerto Rico, in 1958 and 1972; the St. Mark's Castle of San Agustin (Military Museum), Florida, United States, in 1958; the Real Felipe Fortress in Callao, Peru, in 1966; the San Felipe de Barajas Castle and the bastions of San Ignacio de Loyola, San Francisco Javier, Santiago, and Santo Domingo, as well as the Fort of San José de Bocachica, in Cartagena de Indias, all in Colombia, between 1967 and 1973; Portobello and Panama City, in 1970; San Fernando de Omoa, Honduras, in 1972; Puerto Cabello, Venezuela, between 1974 and 1975; Santa Marta, Colombia, in 1977; and San Lorenzo el Real de Chagres, Panama, in 1981.

[2] He restored the Del Morro San Pedro de la Roca Castle in Santiago de Cuba, between 1952 and 1962; the La Real Fuerza Castle in Havana, between 1958 and 1963; the Fort of Yarayó in Santiago de Cuba; the Fort of Jágua in Cienfuegos; the Fort of Matachín in Baracoa; the Fort of Jiguaní; the Ferdinand VII Battery; and the fort and colonial walls in Gibara.

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- Report on the Conditions Required for the Continuation of Restoration Work at the Real Fuerza Castle in Havana, 1961.

Based on the examination of the ideas presented in the aforementioned documents, I present the theoretical foundations of *scientific restoration* followed by both professionals: the rejection of both ruin as a monumental value and stylisticism as an artistic value, and the application of the scientific method as an approach to the historical and technical study of the authenticity of fortified heritage.

In order to continue, the criteria and procedures employed by Zapatero and Prat in the most significant restorations studied are identified, in relation to the concepts established by *scientific restoration*. During the 1930s, the Italian architect Gustavo Giovannoni, a pioneer of scientific restoration theories, classified five criteria, four of which were applied by Zapatero and Prat. First the *liberation* or removal of added preexisting elements. Second, the *completion* of the ensemble through the addition of missing parts. Third, the structural *consolidation* of the preexisting construction. Finally, the distinguishable *recomposition*, or reintegration, of collapsed or dismembered elements (*anastylosis)*. The fifth criterion, that of *innovation*, or the contemporary insertion of essential parts of new construction (Sette, 2005, p. 126), is not considered here, since it was not strictly applied by the authors under study. There are two criteria from the *scientific method* which are also considered for the analysis. These were adopted from *philological restoration* of the late nineteenth century and prevalent in Europe during the first half of the twentieth century: *functionality*, or usefulness adapted to contemporary requirements (Sette, 2005, p. 113), and the *setting*, or humanization, of the monument's surroundings (Sette, 2005, p. 121). These last criteria constitute a constant and inseparable relationship between function and conservation.

The conceptual analysis of theories and architectural restoration criteria is presented based on a contrasted and comparative examination of the methodology employed by each of these two restorers. By doing this, it can be appreciated the degree of agreement or divergence between the chosen purposes and means.

The significance of the present study lies in the verification of the shared models of European *scientific restoration*, which were introduced into the restoration work of the intervened Hispanic-American fortifications.

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BACKGROUND

Life and Work of Zapatero and Prat

Commander Juan Manuel Zapatero López-Anaya, born in the province of Soria, Spain (Burgo de Osma, 1918 – Madrid, 2004), was a career military officer as well as a Doctor in History from the University of Zaragoza, Spain. During the Spanish Civil War, he served in the National Army, joining as a captain at the end of the conflict. There, he became head of the *Servicio de Ultramar* (Overseas Service Department) —now the *Instituto de Historia y Cultura Militar* (Institute of Military History and Culture)— until 1970 and, in collaboration with the *Servicio Geográfico del Ejército* (Army Geographic Service). He was responsible for publications of the *Servicio Histórico Militar* (Military Historical Service), which were of great importance as cartographic and basic historical sources for research (Hernández, 2003, p. 139). As a scholar specialized in castellology and fortification, he stood out in the Chair of American History at the *Universidad Complutense de Madrid* (Complutense University of Madrid, UCM) (Ramírez, 2011, p. 120) and in numerous engagements as a visiting professor at American universities (Calama Rosellón, 2022), but also in the military history of Ibero-America and in the study of fortresses in the Caribbean area, thanks to his immersion in the extensive American military cartography preserved in Spanish archives.[3] He was, without a doubt, the first specialist in Spanish fortifications in America, earning him notable distinctions.[4] This recognition is based on his body of publications,[5] which include a comprehensive study of the fortifications existing in the region, as well as his work in restoration and museography advisory for fortifications in various American countries (Figure 1).

[3] General Military Archives of Madrid and Segovia, and the *Centro Geográfico del Ejército* (Army Geographic Center) in Madrid.

[4] Member of the Royal Academy of History and of eight other academies in Hispanic American countries; honorary son of Cartagena de Indias; Military Commander of the Order of Alfonso X the Wise; Grand Cross of Civil Merit; member of the Hispanic Society of New York; and recipient of the medal of the Royal and Military Order of Saint Hermenegild.

[5] *The Caribbean War in the 18th Century*. San Juan, Puerto Rico, 1964; *The Fortifications of Cartagena de Indias (Colombia). Advisory Study for their Restoration*, 1967–1969; *The Fortifications of Portobelo (Panama)*, Madrid, 1972; *The Fortifications of Omoa (Honduras)*, Madrid, 1972; *History of the Fortifications of Puerto Cabello (Venezuela)*, Caracas, 1977; *History of the Fortresses of Santa Marta (Colombia) and Advisory Study for their Restoration*, 1980; *The Work of Spain Overseas*, Soria, 1982; *El Real Felipe del Callao (Peru). First Castle of the South Sea*, Madrid, 1983; *History of the Castillo San Lorenzo el Real de Chagres (Panama)*, Madrid, 1985.

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JUAN MANUEL ZAPATERO			
Fortification	**Location**	**Period (centuries)**	**Restoration period**
Fort of San Jerónimo del Boquerón	San Juan, Puerto Rico	XVII	1958
San Marcos Castle	San Agustín, Florida, USA	XVII	1958
San Felipe del Morro Castle	San Juan, Puerto Rico	XVI-XVIII	1958-1972
Real Felipe del Callao	Lima, Perú	XVIII	1966
San Felipe de Barajas Castle, Bastions of San Ignacio de Loyola, San Francisco Javier, Santiago y Santo Domingo, Fort of San José de Bocachica	Cartagena, Colombia	XVI-XVIII	1967-1973
Portobello and Panamá city	Portobello, Panamá	XVI-XVIII	1970
San Fernando Castle	Omoa, Honduras	XVIII	1972
Fortifcations of Puerto Cabello	Puerto Cabello, Venezuela	XVIII	1974-1975
Fort of Santa Marta	Santa Marta, Colombia	XVII-XVIII	1977
San Lorenzo el Real Castle	Chagres, Panamá	XVI-XVIII	1981

FIGURE 1. Summary table of the fortifications restored by Juan Manuel Zapatero.

Zapatero advocated for the existence of a *Hispano-American school of fortification*. Although it was approved in 1965 at the *XXXVI International Congress of Americanists*, held in Barcelona, Madrid, and Seville (Zapatero, 1967, p. 148), it is currently questioned by other historians, who view it as a compendium of European fortification knowledge and treatises applied to the complex American reality.

Francisco Prat i Puig, born in the province of Barcelona, Spain (La Pobla de Lillet, 1906 – Santiago de Cuba, 1997), was an archaeologist, museologist, university professor, Doctor in Law, and holder of a degree in Philosophy and Literature from the University of Barcelona (UB) (Puiggrós, 2001, p. 23), and later (1980) a Doctor of Art History, with honors, from the University of Oriente (UO) in Santiago de Cuba. He worked as a History and Geography teacher at a secondary school in Mataró, and as an assistant in the Archaeology department at UB. He combined his teaching with archaeological research and excavations in the Maresme region, where he discovered more than thirty prehistoric, Roman, and Visigothic sites. Additionally, in Spain, he restored the Roman aqueduct in Pineda de Mar, earning awards such as that from the *Institut d'Estudis Catalans* (Medina, 2012; Puiggrós, 2001, p. 24). During the Spanish Civil War, he participated in the *Milicias de la Cultura*, where he worked to safeguard works of art from the national historical heritage. After the war, de-

spite being confined in the Agde concentration camp in France, his archaeological work led him to the discovery of an Iberian settlement (Medina, 2012; Puiggrós, 2001, pp. 31–32). At the onset of World War II, Francisco Prat managed to move to Cuba, where he reunited with his family and obtained Cuban nationality in 1940. From 1945 onward, he collaborated with the founding project of UO and provided technical advice to the *Dirección Nacional de Monumentos* (National Directorate of Monuments, today the *Consejo Nacional de Patrimonio Cultural de Cuba* —National Council of Cultural Heritage of Cuba). Following the 1959 Revolution, thanks to his distinguished professional work, he became a full professor of Art History. This recognition was accompanied by various honors,[6] supported by his publications,[7] and his restoration and museography work, among others, on Cuban fortified architecture (Figure 2), which he rescued from neglect as jewels of Hispanic colonial architecture (Medina, 2012).

FRANCISCO PRAT I PUIG			
Fortification	**Location (Cuba)**	**Period (centuries)**	**Restoration period**
El Morro San Pedro de la Roca Castle	Santiago de Cuba	XVII-XVIII	1952-1962
La Real Fuerza Castle	Havana	XVI-XVII	1958-1963
Fort of Yarayó	Santiago de Cuba	XIX	1964-1974
Fort of Jágua	Cienfuegos	XVII-XVIII	1964-1974
Fort of Matachín	Baracoa	XVIII	1964-1974
Fort of Jiguaní, Ferdinand VII Battery, fort and colonial walls	Gibara	XIX	1964-1974

FIGURE 2. Summary table of the fortifications restored by Francisco Prat i Puig.

[6] He received the Literacy Medals from Cuban Education, awarded by the National Union of Education and Science Workers; the Distinction for Cuban Culture; the Medal for Direction, Planning, and Execution from the Santiago de Cuba City Council; the "*Votos de Gracias*" (Votes of Thanks"), an honor granted by the Congress of Local History of San Juan (Puerto Rico); and, finally, in Spain, the Order of Isabella the Catholic and the Order of Saint George's Cross, both in 1993.

[7] *The Roman Aqueduct in Pineda* (Spain), Barcelona, 1936; *The Archaeological Map of the Maresme Region* (Spain), Barcelona, 1937; *The Pre-Baroque in Cuba: A Creole School of Moorish Architecture*, Havana, 1947; *The New City Hall of Santiago de Cuba* (Cuba), 1951; *El Morro Castle in Santiago de Cuba* (Cuba), 1957; *A Guide to the Ancient Monuments of Santiago de Cuba*, 1963; *Colonial Architecture in Santiago de Cuba*, 1963; *The House of Diego Velázquez* (Cuba), Havana, 1972; *Lectures on Art History*, Santiago de Cuba, 1984; *Significance of a 16th-Century Hispanic Ceramic Collection in Santiago de Cuba*, 1986.

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Training and Context of Monumental Restoration

Despite the vital and ideological differences between Zapatero and Prat, it can be assumed, in view of the aesthetic similarity of their works, that they fundamentally shared the principles of modern heritage restoration acquired during their respective formative periods.

On the one hand, Juan Manuel Zapatero started his work in 1958 on San Jerónimo del Boquerón and the San Felipe del Morro Castle in San Juan, Puerto Rico. On the other hand, Prat began his work in 1960 on the castles of San Pedro de la Roca del Morro in Santiago de Cuba and the La Real Fuerza in Havana. Both started at the age of forty and with a certain level of professional maturity.

Zapatero came from a primarily historicist and Americanist training, forged in the study of cartography and military engineering fortification treatises. His tenure as professor of the History of America lecture at the UCM was influenced by the teachings of Manuel Ballesteros Gabrois, Doctor in Anthropology and Ethnology from the *Kaiser Wilhelm University* (KWG) of Berlin (Ramírez, 2011, p. 120), as well as by other figures with whom he eventually shared professional activity, knowledge, and experience.[8]

Francisco Prat i Puig, as an assistant professor at the UB, received masterful instruction in archaeology from Doctor Pere Bosch i Gimpera,[9] an internationally recognized archaeologist and historian, and a leading figure in modern archaeological theories in Catalonia and Spain during the 1930s (Medina, 2012; Puiggrós, 2001, p. 22). Later, he exchanged theoretical and practical experiences with intellectuals from the Cuban academic and artistic world, such as the historians of Havana, Emilio Roig de Leuchsenring and Eusebio Leal Spengler[10] (Puiggrós, 2001, p. 95).

[8] Doctor José Ibáñez Cerdá, director of the *Instituto de Cooperación Iberoamericano* in Madrid; archaeologist and historian Ricardo Alegría, first director of the *Instituto de Cultura Puertorriqueña* in San Juan; architect Augusto Martínez Segrera in Cartagena de Indias; architect Víctor Pimentel Gurmendi in Peru; and their counterparts Sebastián Paniza in Panama and Graziano Gasparini in Venezuela, among others.

[9] He was a major promoter of archaeological studies in Spain. He served as Professor of Law and Literature, Rector of the University of Barcelona, and Director of the Archaeological Research Service at the Institute of Catalan Studies (IEC), and was named honoris causa at the University of Heidelberg, Germany. Later, during the Spanish Civil War, he held the position of Conseller of Justice in the Catalan government, until he had to leave the country. He was then appointed Researcher at the *Instituto de Historia de la Universidad Nacional Autónoma de México* (Institute of History of the National Autonomous University of Mexico, UNAM) and later at the *Instituto de Investigaciones Antropológicas* (Institute of Anthropological Research, IIA), also at UNAM, in Mexico, where he passed away in 1974.

[10] According to Alicia García Santana (PhD in Art Sciences and Senior Researcher in Cuba), after visiting the newly opened Museum of the City of Havana, known as the Palace of the General Captains, Prat met Leal, then director of the institution, whom he described as "a young man who will make history."

In the Spanish context of the 1930s, a team of architects known as "*los seis magníficos*" (the magnificent six)[11] had been formed. During the Second Republic, they were appointed *regional conservators* according to the established territorial division. In 1929, they created the first professional state structure responsible for safeguarding monumental heritage, directed by the *Junta del Patronato del Tesoro Artístico* (Board of the National Artistic Treasury), with a solid team that successfully introduced the emerging models of *scientific restoration* to Spain —models born of innovative trends, such as the prestigious restoration of the Alhambra in Granada between 1923 and 1936, led by architect Leopoldo Torres Balbás. However, these modern theories, which influenced a new generation of professionals, were not free from controversy. The adoption of new processes did not always prevent some stylistically medievalist restorations from being imposed on Spanish fortresses and castles (González-Varas, 2006, p. 307). Subjective interpretations of the reconstructive approaches of Viollet-le-Duc, or of Elies Rogent,[12] and Vicente Lampérez[13] in Spain, persisted into the 1950s and 1960s, with models that were somewhat more whimsical, characterized by folkloric or picturesque tendencies.

THEORY OF MODERN RESTORATION ACCORDING TO ZAPATERO AND PRAT

The study of the architectural restorations carried out by Juan Manuel Zapatero and Francisco Prat, products of their respective academic training and cultural backgrounds, shares two general principles established by the theory of *scientific restoration*, which dominated international thought during the first half of the twentieth century. The first principle was the need to resolve the dichotomy between John Ruskin's conservationist theories (Sette, 2005, p. 72) and Viollet-le-Duc's interventionist approach (Sette, 2005, p. 50), rejecting the fatalistic view that a monument should be left to decay without intervention. This approach avoided both the fossilization of ruins and the arbitrary or uniform reconstructions typical of *stylistic restoration*. This doctrine, known as *intermediate position*, which opts for a central stance between purely *archaeological* and purely *stylistic* tendencies, introduces the second shared principle: through a scientific methodology of prior technical analysis, which determines the criteria and procedures to be applied in

[11] Alejandro Ferrant Vázquez, Pablo Gutiérrez Moreno, Jeroni Martorell Terrats, Emilio Moya Lledós, Teodoro Ríos Balaguer y Leopoldo Torres Balbás.
[12] Restoration of the Monastery of Santa María de Ripoll.
[13] Restoration of Burgos Cathedral.

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restoration, it seeks a balance between the "historical and artistic significance" of the monument (Sette, 2005, pp. 113 and 126) and the need to document its authenticity and architectural uniqueness (Zapatero, 1985, p. 217; Prat, 1961, p. 8).

Say No to Ruin

According to the documentary sources analyzed and the verification of the rescue of the ruined state of the intervened fortresses, both Zapatero and Prat rejected —contrary to Ruskin's position— the idea of ruin as a monumental value. They considered that, while preserving traces of the past and conserving the original material, the consolidation of a ruin constitutes, for the most part, to paraphrase Cesare Brandi, an "architectural false" (González, 1996, p. 21), due to its inability to generate an interpretable reading of the genuine work. However, exceptions were made for situations in which the ruin had sufficient substance and could not be reconstructed, in which case it should be consolidated.

In 1967, Juan Manuel Zapatero, during his reconnaissance mission to the fortifications of Cartagena de Indias in Colombia, stated: "Today the San Rafael Angel battery [...] is regrettably destroyed. Its recovery is extremely difficult, but not impossible" (Samudio, 2011, p. 480). Since the fortress remained structurally steady despite its apparent ruinous state, as in the case of the San Lorenzo el Real de Chagres Castle (Figure 3a), his preference was for reconstruction; however, he placed limits: any work of this kind on structures that showed only the foundations of their masonry had to be rejected (Zapatero, 1985, p. 238).



FIGURE 3. a) Ruins of the Troop Barracks for the Chagres Fixed Battalion at San Lorenzo del Real Castle, in Panama. b) State of conservation of San Pedro de la Roca del Morro Castle, in Cuba (Courtesy: Office of the Conservator of Santiago de Cuba).

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Francisco Prat explained restoration criteria in line with dictionary definitions of *restore*: "to repair, to return something to the same state or esteem it had before" (Puiggrós, 2001, p. 52), in order to bring the San Pedro de la Roca Castle in Santiago de Cuba (Figure 3b) out of its ruined state. He understood that, with proper maintenance, each element could have reached our time in a state of preservation to which one should aspire —far from the nostalgic decrepitude that some wished to see in ancient monuments. Thus, he was critical of the romantic notion of ruin associated with the value of antiquity:

> Some visitors, imbued with a very widespread prejudice in Cuba, believe that an old monument must necessarily be worn, faded, dirty, and built entirely of stonework, leaving the blocks exposed, even though in Cuba this was almost never the case. [...] What will these visitors say about all the buildings or palaces from the Renaissance onward, which, whether restored or not, retain or have had restored the colors, ornaments, and gilding that are their charm, regarding the removal of even a hint of their true antiquity? (Prat, 1960, p. 6; Puiggrós, 2001, p. 53).

Say No to Stylistic Uniformity

Therefore, Juan Manuel Zapatero and Francisco Prat leaned toward the reconstruction of ruined fortresses, introducing authenticity as a value to be recovered, without attempting to reduce to a single stylistic unity what history had created. Their documents show that they considered authenticity not only as "material originality" but also as "original form." Aligned with *scientific restoration* and its emphasis on the "artistic and historical importance" of the monument —subordinated, in turn, to the consideration of the work's value over time (Sette, 2005, p. 113)—, they gave a dual recognition to the fortifications: the first, documentary value, recoverable through the historical and scientific study of fortified heritage; the second, significant value, through the reintegration of their artistic image with evocative capacity.

Juan Manuel Zapatero conceived restoration as the conjunction of "two independent tasks: consolidation or conservation; and the historical-artistic restoration of the advisory studies," as he described in his advisory study for the San Lorenzo el Real de Chagres Castle (Zapatero, 1985, p. 217). Likewise, in the master plan for the restoration of the fortifications of Cartagena de Indias, he

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noted that no restoration work should alter the original structures, and that reconstruction requires adequate technical and historical information (Zapatero, 1967, p. 146).

Francisco Prat argued, regarding the La Real Fuerza Castle in Havana, that the reports from site visits "will give us a faithful image of its original appearance [...] and the remains of the monument will constitute the foundation on which the restoration must be based" (Prat, 1961, p. 1). He explicitly emphasized —more orthodoxly than his counterpart— the importance of granting the original image the conceptual unity to be restored, establishing a hierarchy of values subordinated to the nonnegotiable artistic conception of the monument. He stated that "restoration [,] like any conscious activity, must obey a basic idea to which other ideas can be coordinated and subordinated, but never overlaid or juxtaposed without some hierarchical relationship, at the risk of creating a jumble that would cause the undertaken work to fail, or at least taint it with the color of the ridiculous" (Prat, 1961, p. 6). His firm commitment to returning the La Real Fuerza Castle in Cuba (Figure 4) to its original state and clearing the allure and parade ground of eighteenth-century additions (pavilions and staircases) (Prat, 1961, p. 6) led to numerous conflicts with official authorities[14] (Prat, 1961, p. 1). His proposals to restore the monument's original image were interpreted by the National Monuments Commission as enforcing a single style, since the second history of the monument and the coexistence of different styles and periods within it had to be respected (Puiggrós, 2001, p. 76). It should be noted that restoration, although temporarily contested as a criterion, was practically endorsed by Gustavo Giovanonni, who manifested a strong propensity for it (Sette, 2005, p. 126), albeit aware of the need to consider the requirements of each of its construction phases and to recognize its parts throughout all periods of its life (Sette, 2005, p. 113).

[14] In 1961, the *Comisión Nacional de Monumentos o Cultura* (National Commission of Monuments or Culture, CNM) once again requested the services of Francisco Prat after he had been dismissed due to strong disagreements with other restorers and members of the Commission, to which he responded: "Being informed [...] that the National Council of Culture had decided to entrust me with the direction of the restoration of the La Real Fuerza Castle [...], I gratefully acknowledge this honorable appointment [...] I wish to make it known that my involvement in the restoration of the aforementioned monument has caused me many displeasures [...] discussions with opponents [...] accusations, also in El Morro, neglect from high authorities [...] support from local authorities and colleagues. Therefore, because I believe that neither should I accept an appointment with reservations, nor should you [...] undertake this work without a carefully conceived and well-oriented plan, which after being considered and judged by you is either approved or rejected, and entrusted to the person or persons who offer the greatest guarantees of interpreting and executing it effectively" (Prat, 1961, p. 1).



FIGURE 4. State of conservation of the La Real Fuerza Castle, in Cuba, before its restoration, without a moat and with the allure fully built (Courtesy: Archaeological Museums of the Office of the Historian of the City of Havana).

The constructive and typological knowledge of architecture from each period allowed both Zapatero and Prat to justifiably remove "excrescences" lacking creative intent or reasonable documentary value, while also avoiding "historical falsifications" with elements that never actually existed. However, they occasionally engaged in reconstructions of questionable verification, *effectively* relinquishing any discernibility between accessories and existing elements, as well as any expression of modernity in new materials.[15] The criterion of *material distinguishability*, first introduced by Gustavo Giovanonni (Sette, 2005, p. 126) and endorsed by the Athens Charter (1931), the Venice Charter (1964), and the theories of *critical restoration* initiated in Italy from the 1960s onward,[16] emerged as a reaction against stylistic restorations that could mislead viewers. In pursuit of an authenticity contained within the original image itself, Zapatero and Prat sometimes adopted mimetic reconstructions and concealed parts of the original material.

The pursuit of originality was not only formal but also environmental. According to the treatment described in the documentation consulted, both restorers felt compelled to recreate the historical atmosphere of the restored spaces by installing furnishings and military décor that evoked the fortresses' functions, inviting viewers to immerse themselves in a period-appropriate setting.

The fortresses that were restored became genuine figurative ideals and "environmental museums," in a deliberate and intentional act of subordinating the strictly documentary value of the

[15] They also did not adhere to other precepts of critical restoration, such as the reversibility of added materials or minimal intervention in the restorations.
[16] Promoted by architects such as Roberto Pane and Cesare Brandi.

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monument to a visually satisfying image for the present and to a contemporary value conceptually close to the term *Kunstwollen* (artistic volition),[17] coined by Aloïs Riegl[18] in 1903 (Sette, 2005, p. 115).

Scientific Method

According to the analyzed documentation, in their restorations Juan Manuel Zapatero and Francisco Prat adopted an approach typical of *scientific restoration*, in terms of seeking an objective assessment of the monument's authenticity (Prat, 1961, p. 8). They developed a methodology based on historical and archaeological knowledge of the fortifications, as well as the technical characteristics of the materials and their state of conservation, which were decisive for establishing criteria and applying techniques compatible with their integrity's conservation.

In his previous studies of American fortifications (Puerto Rico, 1958; Lima, Peru, 1966; Omoa, Honduras, 1972; Cartagena de Indias, Colombia, 1967–1978; Panama City, 1972; Portobello, Panama, 1976), Zapatero described his method in two parts, as detailed in his consultancy study for the San Lorenzo Real de Chagres Castle in Panama. The first part encompasses the results of historical research conducted in the main archives of Spain, containing project files and military cartography, according to which "the systematic and methodological approach used in the surveys of bastioned fortifications is fundamentally based on the co-principles of Military Art treatises from the sixteenth to the eighteenth centuries, [...] providing the essential training for the identification, historical assessment, and technical analysis of works constructed both in Europe and America." The second part establishes that in "a practical survey of the fortifications, primary working materials will consist of campaign records, the master plan, historical documentary and cartographic facsimiles, and phototechnical records" (Zapatero, 1985, p. 217).

The campaign records contain, for each element, the graphic documentation and the numbered restoration objectives on the plan (Figures 5a and 5b). Zapatero regarded problems relat-

[17] "[...] a contemporary artistic value that remains independent of the artwork's position in the historical chain of evolution. [...] It is a subjective value, invented by the modern observer who contemplates it, who creates it and alters it at will [...] conceived not in its objective character but in the effects it produces on the subject, in their sensory perception or in their spiritual awareness" (Riegl, 1903, pp. 26 and 39).

[18] One of the main representatives of formalism in the Viennese school of art history.

ed to the deterioration of cut stone as particularly critical —what he called "this serious battle against erosion" (Zapatero, 1985, p. 217)— and considered it essential to have well-equipped technical teams in coordination with national institutions, as he recommended for the fortifications of Cartagena de Indias in 1967 (Zapatero, 1967, p. 146).

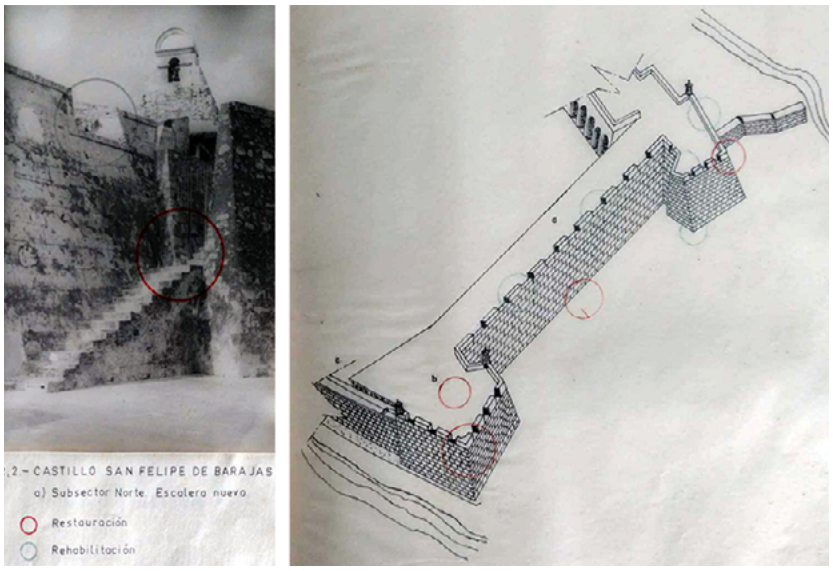


FIGURE 5. a) Photographic records of the campaign logs at the San Felipe de Barajas Castle. b) Plan of interventions on the walls of Cartagena de Indias, both in Colombia (Source: Zapatero, J. M. 1967. *Consultancy Study for Cartagena de Indias. Restoration and Rehabilitation of Fortifications of the 16th-17th Centuries*. Madrid).

Upon his arrival in Santiago de Cuba, Francisco Prat carried out "a systematic study and restoration of the city's emblematic sites, among which was the El Morro Castle, which had deteriorated over time," as reported by *Revista Bohemia* on January 5, 1989 (Puiggrós, 2001, p. 52). Based on the analysis of historical, archival, and cartographic documentation, he investigated its architectural typology in search of its authentic original appearance. "Our Morro has the singularity of offering a double physiognomy, [...] the front of the Castle adjacent to the entrance presents the typical aspect of Modern Age fortifications, flush and sunken into the ground, in the Vauban style. In contrast, the other side of the high fortress, the one overlooking the sea [...] insistently evokes medieval castles" (Prat, 1957).

As an archaeologist, he grounded his knowledge in data of indisputable authenticity, conducting exploratory excavations within the fortifications (Prat, 1961, pp. 8–10), in addition to technical inspection visits in which he examined the composition of the materials: "the materials used in the work to be carried out must be the same as those used in the original construction, and the techniques employed in the primitive construction must be adopted" (Puiggrós, 2001, p. 53; Prat, 1961, p. 9; Prat, 1960, p. 6).

METHODOLOGICAL AND INTERVENTION CRITERIA EMPLOYED BY ZAPATERO AND PRAT

Through the analysis of the previously described documents —which most accurately and thoroughly define the recurring criteria and procedures in the restorations by Juan Manuel Zapatero and Francisco Prat (the consultancy studies Zapatero prepared for Cartagena de Indias, Colombia, and the San Lorenzo el Real de Chagres Castle, Panama, as well as the restoration reports Prat drafted for the San Pedro de la Roca del Morro Castle and the La Real Fuerza Castle in Cuba)— it has been extracted the theoretical and technical information necessary to identify five main criteria shared and applied by both authors in their works: liberation, completion, consolidation, recomposition, and reuse and setting.

To achieve the identified criteria, the procedures employed in each specific case are defined.

Liberation

This restoration criterion, associated with spoliation or *sventramento* procedures promoted by Gustavo Giovannoni during the 1930s, authorizes the removal of accretions deemed non-essential to the monument, and, when necessary, the uncovering of hidden elements of greater heritage value. The following analyzes the procedures for the liberation of added parts, according to both authors, which were considered secondary and dispensable in the fortifications.

Juan Manuel Zapatero proposed the removal of modern remnants, such as iron elements, cement repairs, partitions, storage structures, wires, and power line poles. As a consultant for architect Ricardo Alegría during the restoration works at the Fort of San Jerónimo del Boquerón in Puerto Rico in 1954, previously added American constructions were removed, as well as staircases appended to the original ramps, and ventilation openings and posterns were uncovered and freed (Figures 6a and 6b).

Prat questioned whether remnants lacking significance were worthy of preservation and proposed that alterations should be conserved only when they did not distort the original appearance of the monument. At the La Real Fuerza Castle in Havana, he advocated for the removal of 18th-century additions on the fortress allure (the Governor's House) and the restoration of the fort as it was originally conceived (Prat, 1961, p. 7) (Figure 7a). His criterion was that the additions, purely utilitarian, held no historical interest and had, in fact, destroyed original embrasures, sentry boxes, and traverses (Prat, 1961, pp. 5–6).

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FIGURE 6. a) Housing on the San Jerónimo Fort with a radio station between 1898 and 1946. b) San Jerónimo Fort in 1954 having been freed from the superimposed buildings, both in Puerto Rico (Source: Blog Geo Isla *GEOISLA is a platform to share and disseminate information about the island of Puerto Rico through the exploration of its geography, urbanism, architecture, history, art, design and other related topics*).

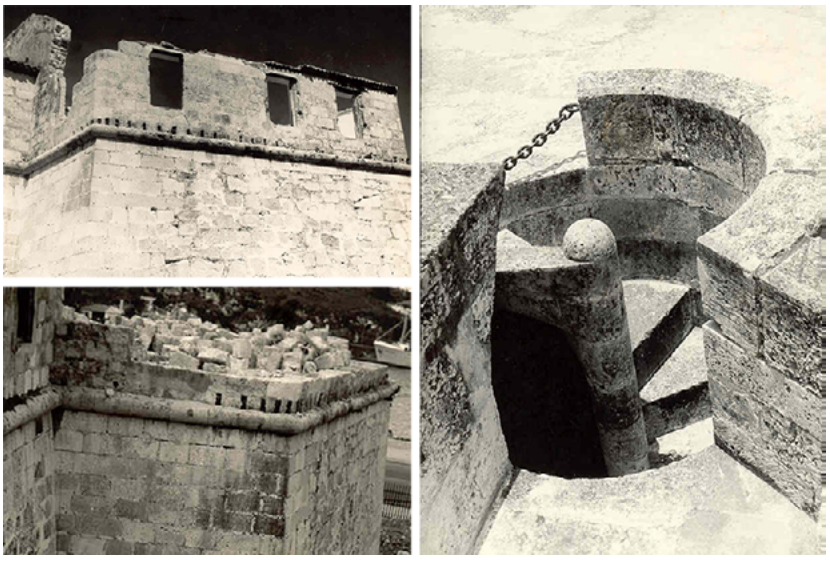


FIGURE 7. a) Partial demolitions on the allure of the La Real Fuerza Castle, in Cuba. b) Clearance of the old spiral staircase leading to the rampart (Courtesy: Archaeological Museums of the Office of the Historian of the City of Havana).

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He also demanded the demolition of the added 18th-century monumental staircase in the parade ground, which provided a new access to the building's roof and blocked the functional circulation of the ground-floor courtyard, depriving the lower rooms of the fortress of natural light and ventilation (Prat, 1961, pp. 5 and 8).

Nonetheless, his proposals achieved limited success, given the disapproval shown by the Cuban National Monuments Commission regarding the removal of the added elements. Only a partial clearing of the volumes existing on the fortress bastions was carried out, while the constructions over the curtain walls, as well as the monumental staircase in the parade ground, were left intact (Puiggrós, 2001, p. 76).

Prat opted to uncover the doors, embrasures, and "skylights" (smoke vents) that had been blocked, which provided light and ventilation to the casemates, as well as the reservoir located outside the parade ground. He also uncovered and freed the original spiral staircase, which had been sealed off (Prat, 1961, p. 7) (Figure 7b). According to the writings of engineer Francisco Carreño in 1577, access to the allure was via two stone spiral staircases with landings, over which engineer Bartolomé Villavicencio noted in 1580 that removable wooden stairs were installed to isolate the access in accordance with the medieval system (Prat, 1961, pp. 6 and 8).

Both restorers also advocated for the removal of vegetation from moats and slopes, felling trees that obscured the original appearance and clearing shrubs whose roots damaged the masonry. Before intervention, the San Lorenzo el Real de Chagres Castle in Panama was completely overgrown with vegetation and shrubs, whose roots were causing severe stone erosion (Zapatero, 1985, pp. 234, 239, 241). Prat focused on restoring the water-filled moats of the La Real Fuerza Castle in Havana, which had previously been drained and backfilled (Prat, 1961, pp. 5 and 9). Zapatero even proposed the installation of "small grass plots" for the moats of the walls in Cartagena de Indias, Colombia (Zapatero, 1967, p. 219).

Completion

This criterion aims to restore missing parts by adding elements, preferably in a limited manner and based on reliable evidence of their original form. The reconstruction operations carried out by Juan Manuel Zapatero and Francisco Prat were not strictly limited but rather general, approaching the *stylistic restoration* of Viollet-le-Duc. Unlike the French architect's approach, both restorers avoided personal or inaccurate stylistic reconstructions and in-

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stead shared a fundamental goal: to reinstate a lost and well-documented image, grounded in a rigorous critical interpretation of historical sources. The following section analyzes the criteria both authors applied to complete the expected original appearance of the fortifications.

Zapatero engaged in the "artistic recovery" of missing elements that were essential for the proper interpretation of all the functions of a fortification, following the models presented in treatises on military architecture (Zapatero, 1985, p. 35). He opted for the reconstruction of powder magazines, sentry boxes, parapets, gun ports made of ashlar masonry, and merlons, including the replacement of missing brick courses or eroded ashlars (Zapatero, 1985, pp. 234, 239, and 241). He also reinstated the original cobblestones or brick pavements, depending on their state of preservation, as well as the fixed wooden staircase with handrails of the San Lorenzo el Real de Chagres Castle in Panama, attached to the counterscarp according to the plans of the *general inspector*, Brigadier Agustín Crame (Zapatero, 1985, p. 242). He restored the missing neoclassical pilasters that crowned the entrance gates of the fortifications —such as the Puerta del Socorro in Chagres, the main gates of the walled enclosure of Cartagena de Indias in Colombia (Puerta del Reloj)[19] (Zapatero, 1967, pp. 217–219), and the Fort of San Fernando de Bocachica, also in Colombia— relying on historical documentary evidence, without which he rejected any possible restitution (Zapatero, 1985, p. 232). Once again, at the San Lorenzo el Real de Chagres Castle, he sought to reconstruct the Castellan's house and the barracks for the Fixed Battalion of Chagres, both in a ruinous state, following the plans of engineer Manuel Hernández from 1763. In these buildings, he reinstated the 18th-century door and window frames, as well as the hipped roofs covered with "Spanish" tiles (Zapatero, 1985, pp. 235 and 237).[20] He also attempted, insofar as possible, to preserve the ruinous remains of the Upper Battery.

Francisco Prat, for his part, based the reconstruction of the La Real Fuerza Castle in Havana on the representation of its original image —an overarching idea rather than a set of isolated actions. Prat stated that "the basic idea in the restoration work of the La Real Fuerza Castle can only be to try to return the building to the appearance it had when it was a fortress, [...] because as

[19] According to the plans of the engineer Juan de Herrera y Sotomayor, who in his opinion took as a model the Main Gate presented on the cover of the 16th century treatise Theory and practice of fortification, by the engineer Cristóbal de Rojas.
[20] According to the plans by the military engineer Manuel Hernández, from 1763 and 1767.

such it is the oldest monument in Cuba and one of the oldest in the Americas" (Prat, 1961, p. 6). La Real Fuerza is also the first and only example of bastioned art from the sixteenth century in the Americas. He opted for the reconstruction of sentry boxes, parapets, and stone embrasures that had been destroyed or concealed by eighteenth-century additions (Figures 8a and b), based on original historical documentation or, in its absence, on interpretations drawn from contemporary fortifications in the region. For the reproduction of sentry boxes and embrasures, he used as a model the typology existing in the La Punta Castle, in the same city —although constructed slightly after— and, for the loopholes and battlements along the sea curtain, models borrowed from the contemporary Mexican fortress of San Juan de Ulúa in Veracruz, due to the lack of Cuban examples from that period (Prat, 1961, p. 7). From his archaeological study of the moat, having found seawater at a greater depth, he concluded that it had been an aquatic moat and therefore proposed its recovery. In the same fortress, he reassembled the wooden capstan used for loading and unloading ships moored beside the fortress when the sea lapped its foundations, as attested by historical documents. On the glacis, he restored the gun carriages, the cobblestone paving of the outer esplanade with *chinas pelonas* (river stones), the drawbridge leading into the enclosure, and the old palisade. He even reconsidered the possibility of relocating the eighteenth-century colonial iron fence, which ultimately remained in place (Prat, 1961, p. 7).



FIGURE 8. a) Reconstruction of lost embrasures and sentry boxes on the bastions of the La Real Fuerza Castle, in Cuba, according to the original plans. b) Adaptation of the existing building (Governor's House), only on the curtain walls (Courtesy: Archaeological Museums of the Office of the Historian of the City of Havana). c) Restoration of the original lime plasterwork and "artificial" masonry on the landward bastion of the San Pedro de la Roca del Morro Castle, in Cuba. d) Recovery of the *sgraffito frieze* on the base of the curtain wall (Courtesy: Office of the Conservator of Santiago de Cuba).

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At the San Pedro de la Roca del Morro Castle in Santiago de Cuba, Prat completed the missing volumes with masonry made of stone and handmade solid bricks. He cleaned the lime washes covering the ashlar blocks, reintegrating the artificial joints highlighted on the landward curtains and the *sgraffito* decorative friezes at their base (Figures 8c and d).

Consolidation

In the works of Zapatero and Prat, this criterion —which seeks to provide solidity and stability to the preexisting structure— is expressed through the consolidation of ruins in cases where reconstruction was not possible, as well as in the preservation of the patina of the surfaces, understood as the sedimentation of time upon the work. The reference to the consolidation of ruins and to the patina of time is, without a doubt, one of the most significant criteria of conservationism associated with the anti-restoration theories of John Ruskin, whose purpose was to preserve the value of the antiquity of monuments and the perceptual pleasure derived from the inexorable passage of time.[21] The following section analyzes the procedures used for consolidating the ruined parts and the patina on the curtain walls of the fortifications.

At the San Lorenzo el Real de Chagres Castle, in Panama, Juan Manuel Zapatero chose to consolidate the ruins of the "Sixteenth-century Tower" of the former warehouse and of the Upper Battery, which he considered unrecoverable (Zapatero, 1985, pp. 233, 238, and 244). In an act of preserving the aged appearance of the patina, he decided not to cover the ashlar masonry with lime coatings (Zapatero, 1985, pp. 228 and 234). In the fortifications of Cartagena de Indias, he preserved partial remnants of ocher-toned lime plaster applied to the scarp and counterscarp walls (Zapatero, 1967, p. 274).

At the La Real Fuerza Castle in Havana, Francisco Prat considered that it would be advisable "to maintain visible the traces that the passing years may have left on it" (Prat, 1960, p. 6; Puiggrós, 2001, p. 52) —although conditionally— "in the case that it had always been maintained as a fortress and cared for as any building normally should be" (Prat, 1961, p. 6). This selective view of preserving the patina of time is also evident at the El Morro Castle in

[21] Aloïs Riegl explained in *The Modern Cult of Monuments* that "the traces of old age, of antiquity, exert a calming effect on human beings as testimony to the unalterable course of nature to which all human work is subject in a safe and infallible way" (Riegl, 1903, p. 43).

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Santiago de Cuba, where he rejected the maintenance and consolidation of the existing patina on the landward curtain wall. In contrast, on the seaward front he preserved that of the irregular masonry of the existing volumes, acknowledging its exposure to the harsh marine atmosphere. In the same fortress, he consolidated the remains of reddish-toned lime mortars, despite the fact that, in the early twentieth century, during the U.S. invasion, the walls had been entirely coated. Both restorers expressed in the documents analyzed their concern for the consolidation of preexisting structures and their respect for the value of antiquity embodied in their works (Zapatero, 1985, p. 217; Prat, 1961, p. 6).

Recomposition

This criterion refers to the act of recovering, relocating, and reassembling scattered or dismantled architectural fragments, reintegrating them into their original structure with the help of infills that replace the lost elements (*anastylosis*). *Scientific restoration* understood that the addition of new materials to the filled parts must be distinguishable, in order to avoid any erroneous interpretation of the result (Sette, 2005, p. 126). Although Zapatero and Prat did not explicitly engage in *anastylosis* procedures —since the collapsed remains were often barely identifiable—, they did resort to the recomposition of the material and of the ruined elements. Despite the absence of any clear aesthetic discernibility between the additions and the original structure, both emphasized the modern concern over the potential damage and alterations that the introduction of new "artificial" materials could cause to the structure or the formal appearance of the restored object (Athens Charter, 1931, v). They paid particular attention to the use of traditional materials and construction or structural reinforcement techniques that were technically compatible with the original elements, as well as to the application of new uses that could be assimilated to the character of the monument. Through the technical analysis of the studied sources, sufficient data were obtained to define the procedures used by Zapatero and Prat in the reintegration of the ruined material —both in terms of its physical constitution and in relation to its form, color, and texture— thus avoiding pathologies that would arise from physical or chemical incompatibility, as well as aesthetic discordances.

These procedures were based primarily on the recovery and mimetic replacement of the original materials used in the fortifications, such as limestone, fired brick, wood, and argamasa (Zapa-

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tero, 1985, pp. 234, 239, and 241). At the San Pedro de la Roca Castle in Santiago de Cuba, Prat required the workers to employ period techniques and elements (Puiggrós, 2001, p. 53).

Both restorers reproduced the historic stone typical of the Caribbean coastal areas, which generally was common coral or shell limestone (Figure 9a). They sought out local quarries whose appearance and properties most closely resembled the original material. A clear example of Francisco Prat's sensitivity regarding the compatibility of the techniques employed is his criticism of the restoration of the Palacio del Segundo Cabo in Old Havana, Cuba, in 1963, when he stated to the authorities that:

> The lower part of the walls are being clad with limestone slabs, with a completely different texture from the shell limestone that forms the original walls. The slabs are being cut using a power saw, unlike the chisel and hatchet techniques of the colonial era. If we add to this the fact that the building should not display its original stonework, having been clad in stone, it turns out that what is being done represents a series of errors of such magnitude that they have never been repeated [...] in Cuba for so many years (Prat, 1963; Puiggrós, 2001, p. 76).



FIGURE 9. a) Brick lantern tower and limestone bracket on bastions of Cartagena de Indias, Colombia. b) Brick stairs at the San Pedro de la Roca del Morro Castle, Cuba (Courtesy: Office of the Conservator of Santiago de Cuba).

Zapatero and Prat also used handmade solid bricks to repair broken or detached pieces, generally from arches, vaults, sentry boxes, cornices, or the finials of parapets and embrasures. At El Morro Castle in Santiago de Cuba, Prat rebuilt the steps of the exterior staircases with thin bricks (3x10x20 cm) which have been called *panetelas* in Cuba since the 18th century (Figure 9b).

They also used wood to replace defective beams or all kinds of door and window frames, and to replace railings, handrails, or flooring. At the San Felipe de Barajas Castle, in Colombia, Zapatero proposed the reconstruction of the original, now-lost, staircases leading to the old fort, or, according to the plans drawn up by Juan de Herrera y Sotomayor in 1730, the upper redoubt of 1657 (Figure 10).

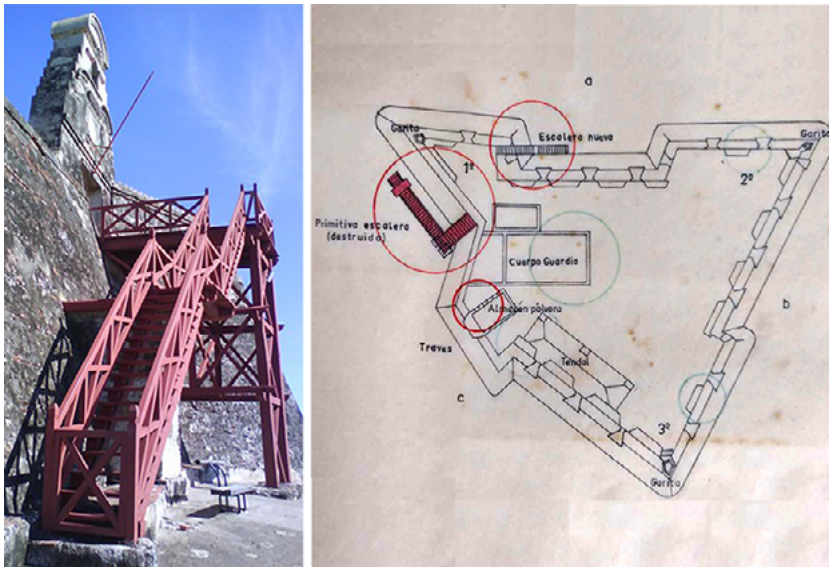


FIGURE 10. Reconstruction of the original wooden staircase and its current state in the San Felipe de Barajas Castle, in Colombia (Source: Zapatero, J. M. (1967). *Consultancy Study for Cartagena de Indias. Restoration and Rehabilitation of Fortifications from the 16th-17th centuries*. Madrid).

Prat carried out the reconstruction of the wooden access bridges of the fortresses: he replaced the old one of the El Morro Castle in Santiago de Cuba (Figure 11a) and replaced the concrete one —along with the wooden structure of the mezzanine of the main body— in the La Real Fuerza Castle in Havana (Figure 11b).

Both Juan Manuel Zapatero and Francisco Prat used lime mortars —both in the consolidation of the factory and as plaster for interior and exterior walls— as a binding and coating material, and bitumen as a waterproof coating for the cisterns once they were cleaned (Zapatero, 1985, p. 237).

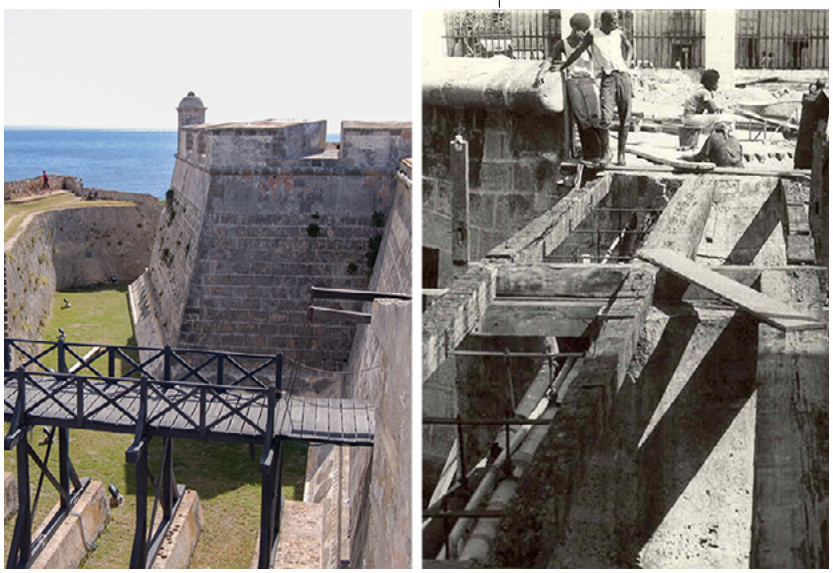


FIGURE 11. a) Wooden bridge for access to the San Pedro de la Roca del Morro Castle, in Cuba, after its restoration. b) Access bridge to the La Real Fuerza Castle, in Cuba; first made of concrete, and rebuilt in wood (Courtesy: Archaeological Museums of the Office of the Historian of the City of Havana).

In his advisory study for the restoration of the San Felipe de Barajas Castle in Colombia, Zapatero noted that the old fort's "comb-shaped bell gable" appeared "encased in cement, a layer that should be removed immediately, replacing it with the yellow lime plaster with a patina befitting its authentic setting" (Zapatero, 1967, p. 274). The lime he refers to is composed of and protected by the application of a solid, gummy resin called *gutagamba*, a substance extracted from the bark of the *guásimo* tree, native of India, which gave it the characteristic yellowish color of the fortresses that still survive to this day. According to Juan Manuel Zapatero, *gutagamba* was transported from the Philippines to Veracruz on the Manila Galleon and, from there, to the Gulf of Mexico for distribution throughout the Caribbean, its effectiveness having been amply demonstrated over time (Samudio, 2011, pp. 483-484). Zapatero discovered the existence of this substance, which he used to restore the eroded or detached exterior coatings of many of the escarpments and parapets, such as those of the San Felipe Castle in Puerto Rico, and the San Felipe de Barajas Castle or the San Rafael Angel Battery in Cartagena de Indias, both in Colombia (Figure 12a).

At the La Real Fuerza Castle in Havana, Francisco Prat oversaw the removal of the cement plaster from the Sometent watchtower and the application of a layer of lime mortar, replicating the original plasterwork, and restoring the weathervane statue and repairing the bells (Prat, 1961, p. 7). At the La Roca del Morro Castle in Santiago de Cuba, he applied a red lime paint, mixing the material with blood from the slaughterhouses, as was done in the past (Figure 12b). To prepare the lime that had to cover the walls, he used nat-

ural products such as prickly pears, cow's tongue, etc. (Puiggrós, 2001, p. 53).



FIGURE 12. a) Lime mortar samples with ochre tones and *gutagamba* at the San Rafael Angel Battery in Cartagena de Indias, Colombia (Source: https://www.tierrabombacartagena.com). b) Lime mortar samples with vermilion tones and cow blood at the San Pedro de la Roca del Morro Castle in Cuba.

Regarding the paving, Juan Manuel Zapatero indicated that, for incomplete fortifications, embankments should be consolidated —by compacting previously watered earth— faithfully preserving the original levels and slopes and carried out as recommended by fortification treatises: in layers of alternating earth and lime (Zapatero, 1985, p. 229). He covered the esplanade paving with lime mortar composed of two parts lime, three parts river sand, and one part white cement mixed with coarse brick dust (Zapatero, 1985, pp. 227-228). By warning that for the repair of leaks in the vaults the filling of the kidneys or the brickwork should never be uncovered, since it could affect their stability, Zapatero focused his attention on the static properties of the vaults (Zapatero, 1985, p. 236).

At the La Real Fuerza Castle, in Cuba, Francisco Prat opted for a protective solution for the floor above the vaults, with a filling of granule concrete (lightened), with ground brick and repairs with ox blood concrete, called Cuban (Prat, 1961, p. 7).

The *Athens Charter* of 1931, in order to introduce new technological advances in the field of restoration, permitted the use of modern materials, such as concrete (Athens Charter, 1931, v.), specifically for structural reinforcement or foundations. The inherent compatibility problems of concrete with stone or brickwork, due to the material's low ductility and high shrinkage, were not yet known. According to the Charter, its use in restoration was encouraged, provided it was not visible or perceptible; that is, only

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if it was covered or concealed, to avoid the aesthetic impact of a rough, cold, and "industrial" material.[22]

Juan Manuel Zapatero acknowledged the properties of applying gray cement on top of the paving to improve the lower vaults' waterproofing, although he considered the use of mortar and "pebbles" to be preferable for greater breathability and compatibility with the vaults (Zapatero, 1985, p. 228). Regarding the collapse of the sections of the walls and counter-wall at the San Lorenzo Real de Chagres Castle in Panama, the decision was made to correct and align them, attempting not to alter the structure (Zapatero, 1985, p. 234). In cases where this was not possible, he introduced a cement buttress with internal supports to counteract the pressure of the embankment, covered with ashlar blocks that maintained the order of the courses (Zapatero, 1985, p. 238).

Francisco Prat used the same operation to correct the collapses of the counterscarps of the moat of the La Real Fuerza Castle in Cuba, building a new concrete retaining wall lined with rustic stonework (Prat, 1961, p. 9) (Figure 13).

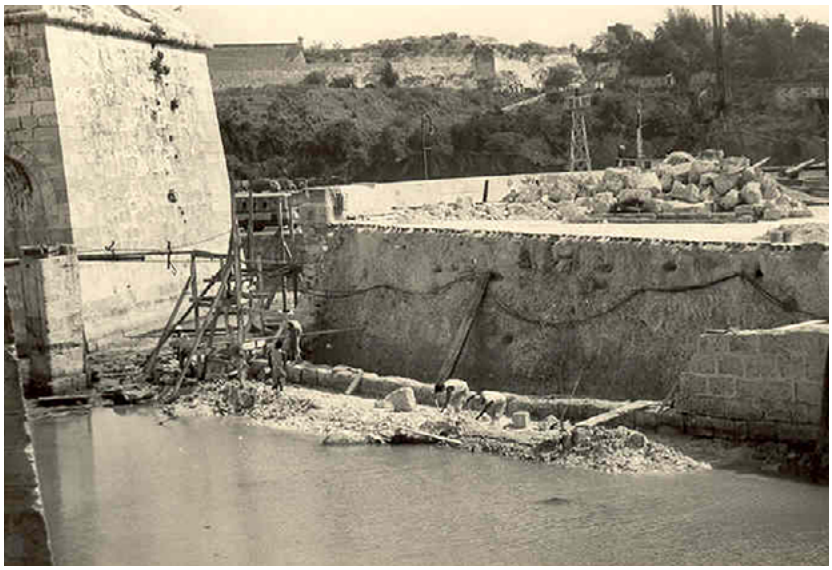


FIGURE 13. Reconstruction of the counterscarp of the moat with additions of structural concrete elements at the La Real Fuerza Castle in Havana, Cuba (Courtesy: Archaeological Museums of the Office of the Historian of the City of Havana).

[22] Athens Charter 1931, Resolution No. 5: "The experts heard several communications concerning the use of modern materials for the consolidation of ancient buildings, and have approved the judicious use of all the resources of modern technology, especially reinforced concrete. They express the opinion that normally these means of reinforcement should be concealed so as not to alter the appearance and character of the building to be restored; and they recommend the use of such means, especially in cases where they allow the elements to be preserved *in situ*, avoiding the risks of destruction and reconstruction."

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Reuse

This criterion anticipates the need to reuse the monument as a guarantee of its preservation, since it is necessary to offer a new functional approach when the defensive function of the fortification has become obsolete. The contributions of Zapatero and Prat regarding how to give fortifications a new use are analyzed below.

In 1959, Ernesto La Orden Miracle praised the tourist potential of San Felipe Castle in Puerto Rico (La Orden Miracle, 1959),[23] including its moats, which had been converted into golf courses. He expressed a clear interest in its international projection and in attracting travelers interested in its history and art, an emerging economic activity during those years that would allow for the self-management of the monument.

Juan Manuel Zapatero used signalling and museography to attract visitors. He had participated, along with Ricardo Alegría, in the project for the Puerto Rico Military History Museum at the San Jerónimo del Boquerón Fort, and years later, in his consultancy study for the restoration of the San Lorenzo el Real de Chagres Castle, in Panama, and stated that the project "should provide prior information for the museographic rehabilitation, essential in the Tourist Attraction Plan" of Panama (Zapatero, 1985, p. 35). According to Augusto Martínez Segrera, he did the same: guiding the artistic recovery work of the fortifications of Cartagena de Indias, in Colombia (Fonseca, 2012), and recommending the activation of restaurants and tourist offices with specialized guides, with displays of historical, artistic, and archaeological objects (models of fortifications and caravels, exhibition of artillery pieces, period furniture and uniformed mannequins, portraits of military engineers, etc.), including the installation of lighting and sound, with historical tape recordings and listening to "military marches" (Zapatero, 1967, pp. 152-172).[24]

[23] In his article "A Tourist Jewel, a Testimony of Spain," he stated that "El Campo del Morro, now Fort Brooke, [...] has been transformed into a golf course, unique in the world, as its holes are nestled among 18th-century bastions, in a landscape of tropical palm trees and blue sea. [...] One hundred thousand people now visit El Morro Castle each year [...] guided by a brilliant team of historians from the United States National Park Service, who [...] are preparing new plans for the conservation and visitation of this magnificent monument. [...] It is recognized by the hundreds of tourists disembarking from any large transatlantic liner."

[24] In the Consultancy *Study for the Restoration of the Fortifications of Cartagena de Indias*, in Colombia, of 1967, he pointed out: "The work done in the Castles of San Juan in Puerto Rico (San Felipe del Morro, San Cristóbal; and especially the San Jerónimo del Boquerón Castle converted into the 'Museum of Military and Naval History of the Caribbean'),[...] what was presented in the San Marcos Castle of St. Augustine in Florida (the most brilliant example of the United States of America); what was done in the Santa Cruz Castle of Mount Urgull in San Sebastián in Spain; and what was planned for the recovery of the historic Real Felipe Castle of Callao, Lima (Peru) can serve as some examples" (Zapatero, 1967, pp. 151-152).

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Francisco Prat understood that the repurposing of El Morro Castle in Santiago de Cuba would be a good way to attract tourists, an essential stop when visiting the city. He stated that "soon visitors will find there the comfort of a welcoming and well-served cafeteria, surrounded by pleasant gardens that will rise alongside it overlooking the Caribbean" (Prat, 1960, p. 3). However, he had to wait until 1978 to see the *Museo de la Piratería* (Piracy Museum) inaugurated there, where its relationship with the fortified Caribbean could be interpreted through a novel —for the time— display scheme with indirect lighting and the use of specialized personnel (López, 2017, p. 138).[25]

Setting

This approach advocates for the recovery of the historical atmosphere of buildings undergoing restoration, a result of the philosophy defended by William Morris and the *Arts and Crafts* movement (Sette, 2005, p. 77). This alternative method of revitalizing existing structures aims to reconstruct fortifications based on the concept of a *museum environment*, with the intention of offering visitors a sensory experience that, as Riegl stated, "requires no knowledge acquired through historical culture, but rather is a product of simple sensory perception, aspiring to reach not only cultivated individuals but also the masses, all people regardless of their intellectual background" (Riegl, 1903, p. 31). The methods for creating the atmosphere of the restored spaces and the museographic interventions proposed by both authors for the fortifications are analyzed below.

In the *Consultancy Study and Master Plan for the Restoration of the Fortifications of Cartagena de Indias*, in Colombia, Juan Manuel Zapatero elaborated using watercolors of cannons, gun carriages, and flags for the decoration of the rooms, indicating that:

> The museographic rehabilitations of the Castles constitute new "museum" versions different from the classic museum or Gallery, which in general do not usually present the climax of the period, since with their invaluable collections they only manage a cold, artificial exhibition of displaced pieces given the insurmountable difficulty of a genuine and authentic

[25] Since 1952, the civic association *Acción Ciudadana para el Mejoramiento Urbano de la Ciudad de Santiago de Cuba* (Citizenship Action for the Urban Improvement of the City of Santiago de Cuba) had been advocating that "the historic El Morro Castle be restored and that its permanence, under a pleasant presence, constitute the best tourist attraction."

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> environment for the display. [...] it is possible to endow them with the "effectiveness" that the environment proposes, to make them serve as an instrument in new national economies, at the same time that they have been dignified (Zapatero, 1967, p. 151).

He designed the museographic rehabilitation of the 18th-century *Casa del Castellano* (House of the Castilian) and the gunpowder store of the San Lorenzo el Real de Chagres Castle, in Panama (Zapatero, 1985, pp. 227 and 236-238). He also devised a similar project for the Military History Museum of Puerto Cabello, in Venezuela, incorporating cannons in the embrasures, armories, ammunition, flags, as well as furniture and uniformed mannequins, in accordance with military treatises (Zapatero, 1988).

At El Morro Castle in Santiago de Cuba (1960), Francisco Prat undertook a museological project for the fortification, "furnishing its various rooms with furniture and weapons, some authentic, some reproduced, so that visitors can form an idea of the function of each room in the monument while it was a fortress in the 18th century and of its tragic fate when it became a prison during the Wars of Independence" (Prat, 1960, p. 6) (Figure 14).[26] At the La Real Fuerza Castle in Havana, he proposed the same approach, to transform the fortress into a "living museum, furnishing it with weapons and furniture like those used at the time, so that visitors have the most complete impression of what it was" (Prat, 1961, p. 10).



FIGURE 14. a) Themed room and display of boleros in the San Felipe del Morro Castle in San Juan, Puerto Rico. b) Artillery piece with uniformed mannequin from the 19th century for the ambiance of rooms in the San Pedro de la Roca del Morro Castle, Cuba.

[26] Years later he created the *Museo de Ambiente Histórico Cubano* (Museum of Cuban Historical Environment), in the House of Lieutenant Governor Diego Velázquez de Cuéllar, in Santiago de Cuba, recreating the atmosphere of his home, which received great recognition.

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The criteria and procedures used show in all the cases presented a respectful approach to the work to be restored: the main concern is to recover the original values that have disappeared through the application of historically and technically reasoned criteria, and the use of studied methodologies and procedures carefully compatible with the elements that are to be preserved.

CONCLUSIONS AND MUTUAL RECOGNITION

The results of the analysis of the restoration studies of Juan Manuel Zapatero and Francisco Prat show their alignment with the theories and intervention criteria disseminated by *scientific restoration*, even though they avoided the distinguishability of the added material.

This latter position, distinct and deliberate from modern theories, reflects a strong intention to faithfully restore fortifications to their original state, more in line with the popular motto "*com' era e dov' era*" (as it was and where it was) that emerged in Italy following the reconstruction of the *campanile* (bell tower) in St. Mark's Square in Venice after its tragic destruction in 1902. This characteristic of the restorations by both authors stands out for its coincidence with more recent opinions, such as those of the Roman architect Paolo Marconi (1933-2013), who from the 1960s onwards defended restoration à *l'identique* of the original as the only authentic way to preserve the true meaning of architecture and not only from that notion of authenticity understood only in material terms (counterpart, in any case, of a simplified version of the "historical falsification").

Therefore, the restorations of Zapatero and Prat, besides reflecting the cultural philosophy of their time, share a broad similarity with each other. These shared characteristics result in a catalog of significantly similar interventions, as demonstrated in this study, as well as the definition of a distinct style that lends their restoration work on Hispanic-American fortifications in the Caribbean a recognizable character.

The "intermediate" theories (moving between "anti-restoration" and "stylism"), the historical-artistic criteria of repristination, the scientific methodology employed, the compatibility applied with the original material, the musealization and the historical ambiance of the fortresses express the sharing of values, theories, and criteria stemming from a shared heritage, typical of the development of the restoration discipline during the first half of the 20th century in the European continent.

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Proof of this lies in the professional respect that Juan Manuel Zapatero and Francisco Prat held for each other, despite never having met. This is evident in a letter that the Cuban painter Daniel Serra Badué wrote to Prat in 1963 (Puiggrós, 2001, p. 77), in which he explains how he came to know Juan Manuel Zapatero, head of the Overseas Bureau at the Military Historical Service in Madrid. He warns him that the Captain "is famous" and that he was surprised to see the report Prat had written for the restoration of the La Real Fuerza Castle in Havana spread out on his desk. Serra tells him in his letter:

> This captain, who holds a doctorate in History, was the one who restored El Morro in San Juan, Puerto Rico, and during my visit, he spoke very highly of your work. Upon learning from me about your beautiful restoration of El Morro in Santiago, he asked me to write to you so that you could send him information about that project and stay in touch with him, as he greatly admires you and would like your collaboration on the archaeological publications of that institution, which are very interesting. All of this, of course, assuming that you also believe in "the neutrality of culture" (Prat, 1963; Puiggrós, 2001, p. 77).

Francisco Prat hastened to convey his Spanish counterpart's message to the director of Cuba's National Council of Culture. Prat had previously clashed with him regarding the criteria used during his tenure as director of the restoration of the La Real Fuerza Castle in Havana, specifically concerning his intention to remove the additions made to the allure, as previously mentioned. In his letter, he clarifies that:

> I have never written to this colleague, nor has anything about the restoration of the La Fuerza Castle been made public through me, [justifying that] I would not want him to interpret these lines as a disrespectful and annoying attempt at interference. If I have decided to send them, it is because I am fully convinced that I am correct in my assertions, until proven otherwise, and this letter, whose origin and arrival of my report in Madrid are completely outside my control, is an argument that may be worth considering (Prat, 1963).

Francisco Prat was indirectly alluding to the recognition he held for the opinion of such a renowned personality in the field of the restoration of Hispanic American fortifications.

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The rapprochement, the explicit allusions, and the reciprocal professional recognition between both figures of heritage restoration confirm, despite geographical and ideological differences, the agreement of the assimilated principles of restoration and the prevalence of the inclusive values of universal culture.

This study serves to highlight not so much the aforementioned intellectual convergence as the theoretical, technical, and methodological processes of architectural restoration that governed the rescue operations of the Hispanic-American fortifications presented here. The works of Juan Manuel Zapatero and Francisco Prat, in most cases and with possible alterations, have allowed us to preserve their intelligible and evocative capacity to this day through their current appearance. Consequently, knowledge of the criteria and methods employed in their restorations, based —with exceptions— on the principles of scientific restoration, represents an indispensable documentary source for contemporary professionals to understand the genesis of the positive results and to inform future interventions in the preservation of the exceptional values of the Hispanic-American fortifications of the Caribbean, which Juan Manuel Zapatero and Francisco Prat so effectively brought to light.

REFERENCES

Calama, A. (2022). Juan Manuel Zapatero y López-Anaya. *Diccionario biográfico español* [website]. Real Academia de la Historia. https://dbe.rah.es/biografias/63016/juan-manuel-zapatero-y-lopez-anaya

Calcines, A., Ramonet, I., Alarcón de Quesada, R. & Barnet, M. (2009). *Eusebio Leal Spengler. Legado y memoria.* Opus Habana Collection.

Carta de Atenas (Athens Charter). (1931). *Conferencia internacional de expertos en la protección y conservación de monumentos de arte y de historia.* http://ipce.mcu.es/pdfs/1931_Carta_Atenas.pdf

Carta de Venecia (Venice Charter). (1964). *Carta internacional sobre la conservación y la restauración de monumentos y sitios. II Congreso internacional de arquitectos y técnicos de monumentos históricos.* https://icomos.es/wp-content/uploads/2020/01/venice_sp.pdf

Fonseca, G. (19 de agosto, 2012). *Augusto, el hombre que lo sabía todo* [website]. *El Universal. Revista Dominical.* https://www.eluniversal.com.co/suplementos/dominical/2012/08/19/augusto-el-hombre-que-lo-sabia-todo/

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González, A. (1996). *Falso histórico o falso arquitectónico, cuestión de identidad. Loggia, Arquitectura & Restauración* (1), 16-23. https://doi.org/10.4995/loggia.1996.5480

González-Varas, I. (2006). *Conservación de bienes culturales. Teoría, historia, principios y normas*. Cátedra.

Hernández, M. (2003). Juan Manuel Zapatero López-Anaya. *Mar Océana: Revista del Humanismo Español e Iberoamericano* (13), 139-150.

La Orden Miracle, E. (1959). *Las murallas de San Juan (Puerto Rico). Mundo Hispánico, 140,* 20-23. http://www.cervantesvirtual.com/nd/ark:/59851/bmcvx2f2

López, O. (2017). *La visión patrimonial del sitio Castillo del Morro San Pedro de la Roca: Patrimonio Mundial. La restauración del Castillo del Morro por el arqueólogo Francisco Prat Puig. El Museo de la Piratería. En El Castillo del Morro. San Pedro de la Roca de Santiago de Cuba. Una pieza excepcional en el Caribe Fortificado* (pp. 135-138). Secretaría General de Política de Defensa-Asociación Amigos del Castillo de Montjuïc. Barcelona, 2017.

Medina, E., Fernández, D. (2012). *Contribución del Dr. Francisco Prat Puig a los estudios históricos en Santiago de Cuba* (1947-1983). *Contribuciones a las Ciencias Sociales*. https://www.eumed.net/rev/cccss/18/mgfu.html

Prat, F. (1957). El Castillo del Morro de Santiago de Cuba. Breve noticia histórico-arqueológica del monumento. Typed manuscript by Luisa E. Prat in 2018. Havana, Cuba.

Prat, F. (1960). *En torno a la restauración del Castillo del Morro*. *Revista Mambí, 1*(4), 3-6.

Prat, F. (1961). Informe de la restauración del Castillo de la Real Fuerza, Carta dirigida a la directora del Consejo Nacional de Cultura de Cuba, Dra. Vicentina Antuña, 25 de septiembre de 1961. Typed manuscript of Prat i Puig given by his daughter Luisa E. Prat in 2018. Havana, Cuba.

Prat, F. (1963). Carta dirigida a la directora general de Patrimonio, 14 de julio de 1963, Typed manuscript of Prat i Puig given by his daughter Luisa E. Prat in 2018. Havana, Cuba.

Intervención

JULIO-DICIEMBRE 2024
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Puiggrós, M. R. (2001). *La distancia no és l'oblid. Fragments de la vida d'un catalanocubà Francesc Prat i Puig*. Associació Medieval de Bagà.

Ramírez, P. (2011). Juan Manuel Zapatero y López Anaya. Comandante de Oficinas Militares. *Revista Ejército de Tierra Español. Grandes Autores del Arte Militar, LXXII*(840) (p.120).

Riegl, A. (1903). *El culto moderno a los monumentos*. Visor.

Rojas, Cristóbal de. (1598). *Teórica y práctica de fortificación conforme las medidas y defensas de estos tiempos: repartida en tres partes.* Madrid. Spain.

Ruskin, J. (1903) *Seven Lamps of Architecture*. https://www.lancaster.ac.uk/media/lancaster-university/content-assets/documents/ruskin/8SevenLampsofArchitecture.pdf

Samudio, A. (2011). Restauración de la batería del Ángel San Rafael. Multiple Authors. *Cartagena de Indias en la Independencia* (pp. 471-495). Banco de la República de Colombia.

Sette, M. P. (2005). *Il restauro in architettura*. UTET Book shop.

Viollet-Le-Duc, E. E. (1974). *Histoire d'une forteresse; texte et dessins*. Bibliothèque d'éducation et de récréation. https://archive.org/details/histoiredunefort00viol/page/n9/mode/2up

Zapatero, J. M. (1967). *Estudio asesor para Cartagena de Indias*. *Restauración y rehabilitación de fortificaciones de los siglos XVI-XVII*. Madrid. https://www.smpcartagena.org/estudio-juan-manuel-zapatero-1967

Zapatero, J. M. (1985). *Historia del Castillo de San Lorenzo Real de Chagre y Estudio Asesor para la Restauración y Rehabilitación museográfica*. Servicio Histórico Militar. CEHOPU Library (Centro de Estudios Históricos de Obras Públicas y Urbanismo). Ministerio de Defensa.

Zapatero, J. M. (1988). *Las fortalezas de Puerto Cabello*. Servicio Histórico Militar-Ministerio de Defensa.

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