

## Defensive architecture and heritage education: analysis of the National Park Service and Parks Canada actions

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### **Abstract**

*Defensive architecture is a heritage typology of great interest for society due to various reasons, such as its monumentality, history, beauty or ability to fascinate thanks to cinema, literature or television. Like other cultural assets, its management is based on research, preservation, restoration, didactics, dissemination and participation following current approaches. In this sense, heritage education plays a fundamental role since it is a tool that connects cultural heritage with people. This fact becomes a key aspect to guarantee its knowledge, preservation, use and enjoyment over time. This paper will analyse the actions on heritage education of the National Park Service (United States of America) and Parks Canada which are focused on defensive architecture. Both offices have been chosen because they manage examples of defensive architecture and are world leaders in heritage education. Therefore, the main purpose is to know their actions and make proposals for the Spanish context. This is an interesting fact because Spain has a rich and varied defensive architecture but heritage education still has little presence, which is surprising because heritage education favours society commitment when preserving cultural heritage. To this end, the qualitative work methodology will be used, specifically the analysis technique applied to the contents of the National Park Service and Parks Canada web pages.*

**Keywords:** *Defensive architecture, heritage education, National Park Service, Parks Canada*

### **1. Introduction**

Defensive architecture, understood as the “structures built throughout history for the defence and control of a territory, whether land or maritime, becoming an indissoluble part of it” (Carrión, 2015a), is an interesting heritage typology for society due to various reasons, such as its monumentality, history, beauty or ability to fascinate thanks to cinema, literature or television (Mira, in press a). Nevertheless, despite losing its original military function, its situation can be improved since these monuments are in a state of ruin (Fig. 1).

On the other hand and like other cultural assets, its management is based on research, preservation, restoration, didactics, dissemination and

participation following current approaches (Ballart & Juan, 2001; Bermúdez, Vianney & Giralt, 2004; Campillo, 1998; Hernández, 2002; Tugores & Planas; 2006). In this sense, heritage education plays a fundamental role since it is a tool that connects cultural heritage with people. This fact becomes a key aspect to guarantee its knowledge, preservation, use and enjoyment over time (Fontal, 2003, 2008; Fontal & Ibañez, 2015).

This aspect is well reflected on different national technical documents such as the national plans for defensive architecture, education and heritage (Carrión, 2015a, 2015b), the *Andalusian Defensive Architecture Plan* (Junta de

Andalucía, s/f: 46) and the *Heritage Education Plan of Madrid* (Gobierno de la Comunidad de Madrid, s/f: 20); as well as on international documents like the *ICOMOS Charter for the Interpretation and Presentation of Cultural Heritage Sites* (ICOMOS, 2008) and the *ICOMOS Guidelines on Fortifications and Military Heritage* (ICOMOS, 2021).

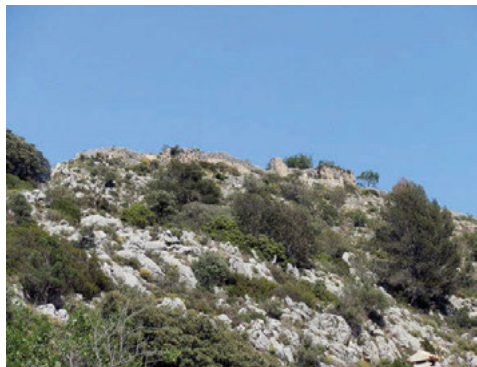


Fig. 1. Tàrbena Castle in Alicante, Spain (Source: Mira Rico)

As a result, the design and application of heritage education programmes on defensive architecture become interesting, specially in Spain: a country with a rich and varied defensive architecture where heritage education still has little presence. This is a surprising situation because, as pointed out above, it is a powerful tool to preserve cultural heritage. In this sense, this research will analyse the actions on defensive architecture carried out by the National Park Service (United States of America) and Parks Canada. Both offices have been chosen because they manage defensive architecture examples in an integral and interdisciplinary manner (something unusual in Spain) and include great heritage education programmes (<https://www.nps.gov/teachers/index.htm>; <https://www.pc.gc.ca/en/lhn-nhs/mb/fortgarry/activ/edu>).

## 2. Why a research of these characteristics?

A research on defensive architecture has been developed in the province of Alicante (a Spanish administrative area located in the southeast

of the Iberian Peninsula) since 2013 (Fig. 2), which is focused on the management of castles owned by municipalities.

This research helped document unmanaged castles along with others managed occasionally and continuously between 2003 and 2013 (Mira, 2017). The predominance of didactics and dissemination actions over research, preservation and restoration actions was verified within castles managed occasionally and continuously (Mira, 2017). Despite being necessary, these actions –guided tours, open days, talks and lectures, etc.– were not included in short, medium and long-term educational programmes designed to promote castles knowledge and preservation. However, there was an exception only for a few years: the collaboration programme developed by the Castalla City Council and the local educational centres that wanted to join it. This programme included a series of talks and guided tours, among other initiatives, aimed to students at primary and secondary levels as well as students at adult schools and initial professional qualification programmes between 2009 and 2017 (Fig. 3) (Mira, in press a).



Fig. 2. Alicante Province (Source: Ministry of Education and Vocational Training)

On the other hand, the management of defensive architecture carried out by the National Park Service and Parks Canada (Mira, 2016, 2017) is a constant baseline for the aforesaid reasons: integral management of cultural and natural heritage, total management (research, preservation, restoration, didactics, dissemination and participation) and interdisciplinary management

(environmental, archaeological, architectural, biological, historical, etc.). The Castle Hill National Historic Site (Placentia, Canada) is a good example (<https://www.pc.gc.ca/en/lhn-nhs/nl/castlehill>; Mira, 2017; Parks Canada, 2007). For this reason, there are some works that delve into defensive architecture management aspects of the National Park Service and Parks Canada, which are unexplored or underdeveloped in the province of Alicante. For instance, the applications for mobile devices (Mira, in press b) and heritage education with clearly defined goals.



Fig. 3. Talk about Castalla Castle for the 5th grade at the *CEIP Rico Sapena* (childhood and primary education school) of Castalla, Alicante, Spain (2015-2016) (Source: Mira Rico)

### 3. Methodology

To this end, the qualitative methodology (Flick, 2007, 2015) has been used, specifically the analysis of educational contents on the *Castillo de San Marcos* (National Park Service) and the Fortress of Louisbourg (Parks Canada) websites paying attention to the following fields: scope and educational level (formal, non-formal and/or informal), length, description, purposes; skills, application (*in situ*, *ex situ* and/or online), educational materials, use of new technologies and educational support.

### 4. Purposes

On the one hand, the main purpose is to better know the heritage education initiatives on defensive architecture applied by the National

Park Service and Parks Canada. On the other hand, there are different specific purposes, such as carrying out an analysis of heritage education actions developed in the *Castillo de San Marcos* (Saint Augustine, United States of America) and the Fortress of Louisbourg (Louisbourg, Canada), determining their similarities and differences, and comparing their situation with that of Spain when implementing heritage education in defensive architecture management.

## 5. Castillo de San Marcos

The *Castillo de San Marcos* (Fig. 4) is the oldest European-designed fortification in the current United States of America. It is located in Saint Augustine (Florida) and it was built between 1672 and 1695 to protect the Spanish presence in Florida and the sea routes that connected the colonies with the metropolis. In 1924, it was declared a national monument and later, in 1933, it was transferred to the National Park Service (<http://npshistory.com/publications/foundation-documents/casa-fd-overview-sp.pdf>).

Although the National Park Service has a specific page with resources for educators (<https://www.nps.gov/teachers/index.htm>), this research is focused on the fortification website (<https://www.nps.gov/casa/index.htm>). It includes a section about heritage education named *Learn About the Park*, which can be accessed from the drop-down menu on the main page. Its organisation is confusing because some sections appear independently and are included in others too, like *Kids & Youth*. Therefore, the analysis was focused on *Education*, specifically on *Parks as Classrooms/Curriculum Materials/Coquina: The Mighty Tiny Shell* (<https://www.nps.gov/teachers/classrooms/coquina-the-mighty-tiny-shell.htm>).

*Coquina: The Mighty Tiny Shell* (Fig. 5) is a didactic unit designed for the non-formal educational field (Carrión, 2015b) with a length of 90 minutes for students at primary school (3rd-5th grade) as well as other people. This unit consists

of explaining the coquina (a rock used for the construction of the fortification) and why it is important for the castle. It is achieved when students acquire a series of skills (remembering, understanding, applying, analysing and evaluating) essential for the purposes of the didactic unit: understand the importance of historical documents in order to know history, get familiar with the use of this documentation, practice unit conversions and solve real world problems through mathematical volume and area formulas.



Fig. 4. *Castillo de San Marcos* view, Saint Augustine, United States of America (Source: [https://commons.wikimedia.org/wiki/File:Castillo\\_de\\_San\\_Marcos.jpg](https://commons.wikimedia.org/wiki/File:Castillo_de_San_Marcos.jpg))

Under normal conditions, that is, without a pandemic, the didactic unit has a hybrid application: it can be worked in the classroom (*ex situ*) and in the castle (*in situ*). But with the pandemic, its contents can also be worked online from the fortification's website without visiting it: a reading to find out who built the castle explaining the role of the Spanish, the Native Americans and the African slave population; an introductory activity in which students must answer the question "Why do you think Spain built the fortress?" based on the information provided by the teacher; a reading and a summary of the contents on the coquina from the website of the National Park Service (<https://www.nps.gov/teachers/classrooms/coquina-the-mighty-tiny-shell.htm>); a reading of the minutes on the placement of the first stone of the castle so that students can put themselves in the shoes of a citizen from Saint Augustine with a series of questions –How do you feel? What

are you thinking? Why is this an important day for you?–; and a problem solving related to volume and area with a practical application in the real world in order to understand the fortification design and building process.



Fig. 5. *Coquina: The Mighty Tiny Shell* (Source: <https://www.nps.gov/teachers/classrooms/coquina-the-mighty-tiny-shell.htm>)

With the aim of achieving and acquiring the aforementioned purposes and skills, some online educational materials are available on the website: information about *Who Built the Castle?*; why the fortress was built (<https://www.nps.gov/casa/learn/historyculture/who-built-the-castillo.htm>); a sheet to work on the volume and area calculation of the castle; why Spain built it ([https://nps.gov/casa/learn/education/classrooms/images/why-spain-built-the-fort\\_1.jpg](https://nps.gov/casa/learn/education/classrooms/images/why-spain-built-the-fort_1.jpg)); *What Is Coquina?* (<https://www.nps.gov/casa/learn/historyculture/coquina-the-rock-that-saved-st-augustine.htm>), which explains its rare and expensive nature and the formation process; and *The Castle Has Begun* with the testimony of the beginning of the castle construction, besides other interesting historical contents ([https://www.nps.gov/parkhistory/online\\_books/source/sb3/sb3toc.htm](https://www.nps.gov/parkhistory/online_books/source/sb3/sb3toc.htm)).

## 6. Fortress of Louisbourg

The Fortress of Louisbourg is a walled city that became a prominent centre of the French overseas empire (Fig. 6). It was conquered by the English in 1758 (Seven Years' War) and disap-

peared after 1760. In fact, it was the only important colonial city without contemporary constructions. In 1961, the Government of Canada began a project to rebuild about a quarter of the settlement. This project required an interdisciplinary research effort (archaeological, architectural and historical), which provided an excellent basis for the study of the French in North America (MacLean, 1995). Today it is a national historic site of Canada and is part of its national park system (<https://www.pc.gc.ca/en/lhn-nhs/ns/louisbourg>).



Fig. 6. Fortress of Louisbourg view, Louisbourg, Canada (Source:

[https://commons.wikimedia.org/wiki/File:Fortress\\_of\\_Louisbourg,\\_Louisbourg,\\_Nova\\_Scotia\\_01.jpg](https://commons.wikimedia.org/wiki/File:Fortress_of_Louisbourg,_Louisbourg,_Nova_Scotia_01.jpg))

Parks Canada enables to discover and learn about the managed sites through programmes at local schools, some publications, its website and other media (Parks Canada, 2011). However, Parks Canada does not have a specific page for educational resources unlike the National Park Service. This fact is well reflected on the contents of the Fortress of Louisbourg website (<https://www.pc.gc.ca/en/lhn-nhs/ns/louisbourg>), which are very different from those on the *Castillo de San Marcos* website. In this case, it shows a presentation of the tourist offer together with non-formal educational components of the fortress. Nevertheless, Parks Canada is committed to involve young people, whether at home or in the classroom, through an informal relationship established with the Regional School Board, (Parks Canada, 2011: 23). In general terms, this can be seen in the *Culture/Our Interpretation* section and subsection, which summarises the interpretive commitment of the fortress (sounds, melodies, meals, clothing, houses, furniture, scents, smells and daily activities) so that visitors can immerse themselves in the 18th century

(<https://www.pc.gc.ca/en/lhn-nhs/ns/louisbourg/decouvrir-discover/interpretation>). More specifically, in the *Things to Do* section, the activity *Rookie Tour (Children's Program)*, with a length of 45 minutes and aimed at families with children between five and eight years old, enables to know childhood in a colonial city in the middle of the 18th century through gardening, livestock, fishing and military activities (<https://www.pc.gc.ca/en/lhn-nhs/ns/louisbourg/activ/enfants-children>). *Kids' Corner* is another interesting section aimed at children that explains how to build a lighthouse or a swallow's nest. In addition, children can answer a quiz with fun questions about the swallows or Louisbourg lighthouse as well as do a word search included in the activity book (<https://www.pc.gc.ca/en/lhn-nhs/ns/louisbourg/activ/coindesenfants-kidszone-nest>) (Fig. 7).

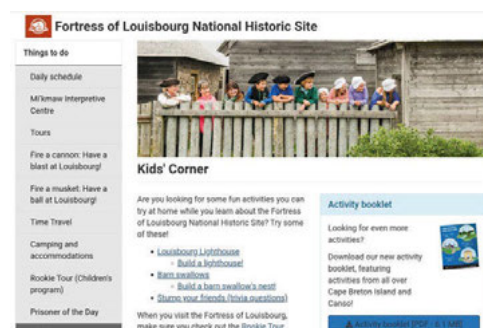


Fig. 7. Fortress of Louisbourg. Kid's Corner (Source: <https://www.pc.gc.ca/en/lhn-nhs/ns/louisbourg/activ/coindesenfants-kidszone>)

When comparing the actions developed by the National Park Service and Parks Canada in the *Castillo de San Marcos* and the Fortress of Louisbourg, their differences stand out despite their similarities in the non-formal educational field and the online contents committed to new technologies. Actually, the main difference is the greater quantity and diversity of information on the web pages of the castle and the resources for educators of the National Park Service, which is better than that provided by the Parks Canada.

## 7. Situation in the Spanish context

As pointed out in a recent paper (Mira, in press b), Spain does not have similar structures to those of the National Park Service or Parks Canada. Therefore, the heritage education on cultural heritage and defensive architecture is applied by the General State Administration, the regional administration, the local administration –provincial councils and city councils– and different private entities. This is a complex situation that does not always show optimal results. Focusing on castles owned by municipalities in the province of Alicante (see Fig. 1), whose management has been well studied (Mira, 2017), it should be noted that none of them has a website nowadays, neither those located in smaller municipalities (something that can be understood due to a lack of human and technical resources) nor in the largest ones. In fact, all the information is included on different general web pages of the city councils like Sax Castle (<https://www.sax.es/conoce-sax/patrimonio-arquitectonico-y-cultural/el-castillo>). Atalaya Castle (Villena), Dénia Castle, Elda Castle and Santa Bárbara Castle (Alicante), located in largest municipalities, do not have educational contents. Atalaya Castle and Dénia Castle (Figs. 8-9) have general information and a brochure (<https://www.villena.es/museo-castillo/>; <https://www.denia.net/castillo-de-denia/>); Elda Castle includes general information and an audio track in Spanish and English (<http://turismo.elda.es/que-ver/castillo-palacio>); and Santa Bárbara Castle only offers general information (<https://www.alicante.es/es/equipamientos/castillo-santa-barbara>) (Fig. 10).

The exception is Orihuela Castle (Fig. 11), which includes a wider variety of technical and dissemination contents on its website in spite of being in a state of ruin: general information, technical documents, dissemination sheets, publications and videos (<https://patrimoniohistoricodeorihuela.com/proyecto/castillo-y-murallas-de-orihuela/>).

Its dissemination sheets offer historical information about the fortification, like the artillery bastion

(<https://patrimoniohistoricodeorihuela.com/wp-content/uploads/2021/02/EL-BALUARTE-ARTILLADO.pdf>), with some texts and graphics that can be used for educational purposes too.



Fig. 8. Atalaya Castle (Source: Mira Rico)



Fig. 9. Dénia Castle (Source: Mira Rico)



Fig. 10. Santa Bárbara Castle (Source: Bevià i Garcia)

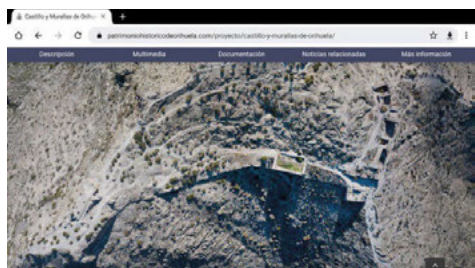


Fig. 11. Orihuela Castle website. (Source: <https://patrimoniohistoricodeorihuela.com/proyecto/castillo-y-murallas-de-orihuela/>)

## 8. Conclusions

New technologies have become essential tools for managing cultural heritage in the 21st century, especially for promoting its educational aspects as clearly stated by the educational proposals of the National Park Service and Parks Canada.

As mentioned above, the *Castillo de San Marcos* and the Fortress of Louisbourg have two web pages with educational contents. In the first case, non-formal didactic units have been included to learn more about the fortification at different levels among other resources. In the second case, the fortress is committed to the presentation of the tourist offer with non-formal educational components. Educational heritage contents of the *Castillo de San Marcos* provide a detailed knowledge to any interested person (whether American or not) despite the location and the current pandemic situation.

This situation contrasts with the Spanish one, particularly in the province of Alicante, where there is still a lot to do as can be seen in the examples already given. In this sense, and as indicated for other aspects such as applications for mobile devices (Mira in press b), a coordinated heritage education policy lacks both in the province of Alicante and the Valencian Community, which should be focused on fortifications and new technologies in order to offer educational contents according to the different public and interests. This is something very necessary in a territory full of castles as well demonstrated by the Route of the Knights Tem-

plar (<https://www.dipc.es/es/territorio-templario.html>) or the Costa Blanca 100 Castles Route ([http://www.costablanca.org/Esp/Descubre\\_la\\_Costa\\_Blanca/Castillos\\_de\\_la\\_Costa\\_Blanca/Paginas/default.aspx](http://www.costablanca.org/Esp/Descubre_la_Costa_Blanca/Castillos_de_la_Costa_Blanca/Paginas/default.aspx)) (Fig. 12).

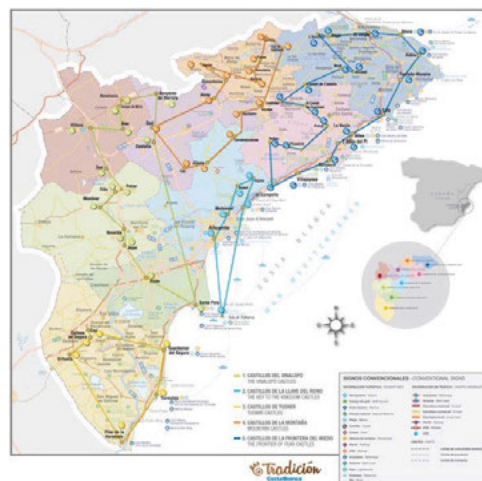


Fig. 12. 100 Castles of the Costa Blanca (Source: [http://www.costablanca.org/Eng/Descubre\\_la\\_Costa\\_Blanca/Ruta%20de%20los%20Castillos/Pages/default.aspx](http://www.costablanca.org/Eng/Descubre_la_Costa_Blanca/Ruta%20de%20los%20Castillos/Pages/default.aspx))

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