CULTURAL HERITAGE OF THE COASTAL ZONE -
URBAN PLANNING &
REUSE OF THE WWII “ATLANTIC WALL”

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Abstract: - The remains of the Atlantic Wall installations (bunkers) of WWII which extend all along the western coasts of Europe (of France, of the British Channel Islands, Belgium, Holland, Germany, Denmark and Norway), presents a subject worthy of research. From a cultural heritage and urban planning standpoint, the question of the reuse and best possible rendering-exploitation-reuse of this European modern day equivalent of the Great China Wall. This research interest can be attributed amongst others to its uncommon, unconventional utilitarian character, and to the trans-European historical identity which involves a shared cultural heritage as well as to the size and architectural nature of this most extensive cross-border linear building form. Apart from reference being made to historical elements describing the various phases of planning, construction and use and the role that it played during the war period, the article exposes the choice of not destroying but of maintaining-rebuilding and preserving of sections of the Atlantic Wall by the responsible institutions of the interested European states, leading to its final transformation of uses and operation today. Finally, case studies are presented from a number of European countries, with focus on the type of intervention, in the urban re-planning and in the local, territorial-urban transformations of coastal departments of cities today, which render new cultural poles of built-up, urban and tourist attraction and recreation.

Key-Words: - Urban Re-Planning, Reuse WWII Atlantic Wall, Cultural Heritage & Tourism.

1 Introduction
Worthy of research constitutes the case of the exploitation of the building nutshell (bunkers), for non-military uses, the installations of the “Atlantic Wall” (Atlantikwall in German) of WWII alongside the western coasts of Europe extending from Southwestern France to Norway (see Fig. 1).

Fig. 1: Atlantic Wall 1942-1944

Case studies from a number of European countries are reported in the way of intervention, in the urban re-planning and in the local, territorial-urban transformations of coastal departments of cities today [5,6,7], that elect new poles of cultural, built-up, urban and tourism attraction and recreation.

2 The Building of the Atlantic Wall
Atlantikwall (Atlantic Wall), extensive system of coastal fortification- made of bunkers (in various shapes, types and sizes with walls of 2-3m typical thickness) alongside the length of the western coast of Europe, is one of the largest defensive works of the 20th century, was manufactured by the German occupation forces during the period 1942-1944 of WWII. It extended in length 6000km along side the coasts of France, of the Channel Islands of the UK, Belgium, Holland, Germany, Denmark and Norway [Fig. 1] and was intended to prevent the landing of allied forces in the German occupied countries of Western Europe. It was overall constituted by a line of 14,000 buildings of different scale of size, heavy compact construction, from reinforced concrete, which implementation involved an enormous cost.
and a very significant number of man hours. Fritz Todt, who architected the Line Siegfried (Western wall) alongside the French-German border, was the head engineer of this study and supervised the initial and simpler principal coastal fortifications that included structures of invasion hindrance in the continental space, as a deterrent to allied plans involving landing from the sea [8]. In early 1944 General Erwin Rommel proceeded in his drawing of reinforcement of the Atlantic Wall, believing that until then the constructions were defensively inexistent. He then ordered the building of a continuous reinforced concrete linear wall uniting the various concrete buildings alongside the coast and on occasion also in the mainland, for the accommodation of heavy armed artillery systems, etc, in conjunction with the creation of minefields and obstacles preventing the access of tanks alongside the coastline as well as alongside of coastal roadways. Thousands of workers, mainly prisoners of war were forced to work for the building of the Atlantic Wall [Fig. 2.], which was never completed.

![Fig. 2: Construction of the Atlantic wall SOURCE: [2]](image)

Today a large number of these buildings have survived the war and are in a very good situation, and the better preserved are found mainly around the Hague in the Netherlands, in Normandy, France and in Ostend in Belgium where a well maintained section of fortifications functions as an exhibition space with genuine exhibits from WWII, while in other regions and countries many of these structures operate also museums in authentic spaces. Near the French coast the German Occupied Channel Islands belonging to the UK received a more powerful fortification (10% of the total used steel and concrete of the Atlantic Wall, by order of Hitler) and particularly Alderney, the nearest island to the UK, for reasons of prestige and propaganda in support of Germany’s control of land. In preparation for D-Day and the landing in Normandy, the UK and its allies bypassed all together the Channel Islands and intervened directly on the coasts of France, and they did not attempt to free them from German occupation before securing land bases in Normandy. The German armed forces of the Channel Islands did not surrender until the 9th of May 1945, one day after the capitulation of the remainder of the German armed forces. The German guard on the island of Alderney did not surrender until the 16th of May 1945. [1, 2, 8].

3 Cultural Heritage & Current Use

The original meaning of the Atlantic Wall was the confirmation of a situation of occupation, the indication of a territorial limit, an obstacle of passage of transport and of communication that constituted a technical system with a separating-splitting role in the relationship between landscape, natural space and society, during the period of its operation. Postwar progressive architects and town planners sought the exploitation of the blockhouse shells and their external space for the realization of new planning and reformation, facing them as a field of application of urban strategy and of a design methodology. It was decided that there would be no demolition of installations for practical and historical-cultural reasons [6, 7] and that their exploitation would involve their integration as part of the modern urban and social web [1-8]. At the same time as these efforts, with the purpose to underline the architectural, aesthetic and cultural value of the landscape of this international heritage and for the preservation of the collective memory of a common European history through the creation of the Atlantic Wall Linear Museum, in 2005 this was materialized with the participation of a number of European Universities (Department of Architects of the Politecnico di Milano University in Italy, Centre Raymond Lemaire of Leuven in Belgium, GRAI (Groupe de Recherche sur l' architecture et les infrastructures) école d’Architecture de Versailles in France, etc.), under the sponsorship of the European Community program “Culture 2000”, Research (“The Atlantic Wall Linear Museum: cultural heritage, collective memory and common roots for the forthcoming Europe”) with object the collection of relevant digital information material of (texts, photographs, drawings) from its building until today. This Research effort was awarded in 2007 in Sweden, the annual E.U. reward for Cultural Heritage “Europa Nostra”, in the category “Distinguished Research”. This research has contributed successfully in the maintenance of collective memory and common European history via the publication of a list and Atlas, photographic campaign, the organization of a conference, traveling exhibition (“The Atlantic Wall Traces: Cultural Heritage, Collective Memory and Common
Roots for the Forthcoming Europe”) and creation of a web site.

4 Urban Planning & the Atlantic Wall

The significances ”of juxtaposition”, ”of completion”, ”of revelation" and ”of cover" characterize the role of their creation, but in our times and the way of their exploitation - exploitation of the building shells of the Atlantic Walls, but also their effect on architectural design mainly in Holland. These principles have been materialized mainly in the case of regions: Hook of Holland, Hague, Valkenburg and Ijmuiden coexisting simultaneously [Fig. 3-13]. The modern design and materialized interventions in these regions, included: a) living self-sufficiently in terms of water and energy supply, b) a low density of housing in/on sand, water, and peat, in an area deeply affected by military design strategies, c) living in high housing density with connection to existing networks of the village of Valkenburg. This would negate the need for extra roads, infrastructure, and facilities, d) living in high housing density in “Mini- Manhattan” on the grounds of the air force base, a site that already has a high concentration of commercial buildings at present. Here one might consider skyscrapers that broaden as they rise, climb to give more residents a view of the sea, e) a village of military barracks along the landward edge of the dunes. Here the heritage of the Atlantic Wall could function as a living open-air museum. [Fig.14-39].

![Fig. 3: Netherlands, den Haag Berlage 1908](image3.jpg)

![Fig. 4: Netherlands, Dudok 1949.](image4.jpg)

![Fig. 5: Netherlands, Ijmuiden (30 km from Amsterdam), construction 1850.](image5.jpg)

![Fig. 6: Netherlands, Ijmuiden 1947- after the destructions of WWII due to its naval importance.](image6.jpg)

![Fig. 7: Netherlands, Ijmuiden 2005.](image7.jpg)

![Fig. 8-13: Netherlands Valkenburg. Transformation of bunkers in open air for other uses. SOURCE: (3-13) [4](image8.jpg)

5 Reuse of the Atlantic Wall for Tourism and Other Uses.

To a large extent (some of these blockhouse structures have suffered erosion while others have sunk in the sand of the beach) the building shells have been reused according to their sizes for communal operations, and house municipal or government owned installations, homes, maritime traffic observation lighthouses, cultural spaces and exhibitions, observatories, small factory warehouses, souvenir shops, museums, cafeterias, boy scout headquarters, small lockers room in beaches, but also for artistic expressions [Fig.34,35]. Besides the tourism attractiveness, the interventions had an effect on the urban and socio-economic data of the wider region, and represent attraction poles and points of reference.

![Image of Blockhaus](image9.jpg)
6 Conclusion

The promotion of the development of collective conscience of a common cultural heritage through documentation and the unique rendering of this special cultural monument of buildings extending...
across a number of European countries, contributed particularly to the effort of exploitation of architectural, aesthetics, landscape, urban and tourism dimensions. The approach of ‘sustainable reuse’ of the system and installations initially was complex and involved unattractive building shells of older military uses in a time of peace and for the public’s benefit, for cultural, economic, touristic and developmental aims constitutes a challenge from a design, planning and operational undertaking standpoints. The project is considered a success by specialists and by the general public as it creates a unified front of culture and tourism which interacts with the cities and their wider region.

References: