



possible re-use

# AWAY**\***bunkers

## Atlantik[wall] bunkers



la ricerca è parte di  
THE ATLANTIC WALL URBANISM  
Gained by il programma "Culture 2007"  
è promossa da  
Orientamento interno/Laurea Specialistica in Architettura  
Facoltà di Architettura e Società/Politecnico di Milano  
a cura di  
Gennaro Postiglione

collaborazioni:  
aletmento  
Valeria Bormolini, Claudia Burrelli, Margherita Parodi  
consilenzia emontaggio  
Carlo Ghezzi, Paolo Negroponte del Laboratorio di Aletmento  
Dipartimento AbAdQ  
cas studio  
Amelia Valletta con gli studenti del lab Interni prof. Paoliglione  
rileve e presentazione a letti a Solaia sull'area  
studenti del lab Interni prof. Postiglione

contributi:  
in  
Eugenio Mazzoni, Società  
Ecole d'Architettura, Società  
DIA-Politecnico di Milano



plimentary cooperation of several people and institutions - all of them present at the final conference at the Politecnico of Milan (8 November 2005) - we encountered many obstacles dealing with military archives. Perhaps it is a signal that indicates one of the themes that the research seeks to touch: Memory. Beyond its documentary and archivist spirit, this work is also not unaware of the embarrassing memory which lies in these buildings: a collective, shared memory, unresolved on a European level, and rather in some respects repressed. It is almost as if a gaze may rest on these objects only on the condition that the role of memory is alienated: memories and records which are nevertheless imprinted in their own physical structures, and in their geographical locations.

Slits that perhaps open through the crystallised gaze of Guido Guidi's, the photographer who, travelling along "the wall", has arrested in some unforgettable snapshots the fragments of history imprinted in each of the buildings. Entrusting a photographer's sensitivity with the task of reading and condensing the complexity and vastness of the defensive system into a limited number of images has been one of the main acts of interpretation of the Vallo Atlantico (as we call it in Italy). In fact, the snapshots restore the reality of the infra-

farthest, Norway, to nearer France, passing through Denmark, the Netherlands, Belgium and the Channel Islands. The selection of sites was followed by detailed research and the collection of historical documents, maps and photographs, which contributed to reinforcing the idea of unity concealed behind the realisation of the Atlantikwall. The materials are presented in different ways: on the website dedicated to the project ([www.atlanticwall.polimi.it](http://www.atlanticwall.polimi.it)), in the travelling exhibition ("The Atlantic Wall Linear Museum: cultural heritage, collective memory and common roots for the forthcoming Europe"), opened for the first time at the Politecnico of Milan on 27 October 2005, and in this catalogue. Concerning the cartography, the research work conducted in the archives has, above all, brought about the realisation of the first European mapping of the Atlantikwall; a map obtained by compiling those belonging to diverse archives, and assembled here for the first time. Notwithstanding the geographical and chronological differences, and the diversity of information contained in each sheet, this map is at the same time the sign and the symbol of our work: research aimed at sewing together heterogeneous, autonomous and separated elements. The work did not lack difficulties. For instance, while editing the cartographic atlas, together with the com-

Two years ago when, together with GRAI and RLICC, we submitted our proposal to the European Union to obtain co-funding for the project "The Atlantic Wall Linear Museum", the state of the art seemed pretty chaotic and confusing an archipelago of institutions, associations, working teams and so on, each acting at a national level, if not locally. So if, on one hand, the reasons for such a wide interest in The Atlantic Wall seemed evident, on the other, the reasons of its fragmentiness were obscure. As such fragmentation seemed paradoxical inasmuch as were evident the value and the unity of the immense infrastructure, we devoted most of our energies to attempting to systematise the multiplicity we were confronted with. The compilation of catalogue-archive, realised starting from a standard template (obtained by simplifying the internationally recognised one), has been the first concrete research towards the construction of the future Linear Museum which takes into account the bellicose infrastructure in its transnational dimension. The reasoned and critical cataloguing of a defined number of cases, nine-eight sites in all, has been carried out thanks to the participation and responsibility of local experts and institutions already operative in the field, scattered across the different countries traversed by the Wall: from the

## \*introduction





⊕

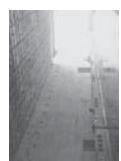
⊕

⊕

⊕

⊕

⊕



that to transform the long Atlantic Wall into a shared monument is a real action, creative and positive, an extension of the mourning that also keeps alive the shared memories stored in it. What in fact are monuments, if not means to prevent men from forgetting, as well as artefacts from which to demand the task of preserving and passing on collective values? This is, in fact, the primary purpose of the monument. This is the undertaking for those of us involved in the Atlantic Wall Linear Museum: A 'wall' that exploits the architectural and landscape value of the massive infrastructure in order to sew together public history and individual stories. Therefore, it is the organizers' intention to submit this work to UNESCO in order to overcome the fragmented approach to the Atlantikwall and the interest in its artefacts, an attitude that has often been useful only to further vested, and sometimes unclear, interests. Only by collecting and taking back what belongs to us can we battle the many attempts at instrumentalisation bringing new life to a piece of our history, which is also, indissolubly, a piece of our body.

gennaro postiglione



#### \*description

The state of abandonment of much of the Atlantic Wall jeopardizes both its existence and the values, which it represents. Preserving this memory and history is essential for a Europe intent on building its own future. At the same time, it's also important to form and sensitize public opinion concerning the value of such an extraordinary transnational territorial infrastructure.

To underline the Atlantic Wall's architectural, aesthetic and cultural landscape value as a transnational cultural heritage, preserving a shared collective memory on European soil. This heritage would be salvaged and protected through the creation of The Atlantic Wall Linear Museum, contextualizing the fortified landscape into a series of museum spaces spanning the Wall, which would provide the inherent infrastructural information needed to instill in individuals and communities a process for reappropriating the landscape and their collective memory.

The Atlantic Wall is one of the last major defence lines of this century. It was built by the German occupying forces in the period 1941-1944 along the coast of France, Belgium, Netherlands, Germany, Norway and Denmark. The main goal was to prevent allied landings on the shores of these countries.

During this period more than 5000 heavy, concrete bunkers were built. An amount that is impressive by the quantity, the cost and the involved labour.

Moreover many prisoners were forced to work on the construction and lost their lives there intersecting private stories with social history.

The infrastructure, which is a unique example of its kind, is of great value for many reasons. The architectural quality of its vast building system, the ability

of these objects to define a new aesthetic canon for modernity, the relationship they have established with their natural and/or urban contexts - becoming

essential elements for interpreting the cultural landscape. The greatest value of this system of military fortifications however resides in its being the most widespread heritage of European culture preserving a collective memory of WWII.

#### Traveling Exhibition

"The Atlantic Wall traces: "Cultural Heritage, Collective Memory and Common Roots for the Fortcoming Europe". The exhibition would present in a concise and evocative way a selection of materials (maps and photographs) proposing critical interpretations which would stimulate the development of a collective, shared consciousness of the architectural, aesthetic and landscape value of this immense cultural heritage available to the general public. A presentation of stories and compartments both arising from and occurring on the territory: a place where collective and individual memories overlap (national and European).

#### actions

##### The Atlantic Wall Atlas

The publication of an atlas, presenting an historical documentation of maps of the areas concerned

⊕



The main objective of the exhibition is to oppose the process of disintegration of the Atlantic Wall resulting from public neglect and reappraise on a European scale, its specific positive value as a testimony of "resistance" and the creation of peace.

**International Convention**

"The Atlantic Wall traces: "Cultural Heritage, Collective Memory and Common Roots for the forthcoming Europe"

The Convention should promote a critical discussion of the work, research and objectives undertaken and serve as a forum for exchanging ideas and interpretations of the Atlantic Wall infrastructure. The diverse analytical approaches and proposed themes will be presented as papers and/or lectures.

Representatives and Partners or Participants as well as other outside parties involved will also offer their own contribution concerning the great value of the Atlantic Wall as a transnational cultural heritage underlining a shared collective memory, - on European soil.

The promotion of an Atlantic Wall Linear Museum, underlining a common socio-politico-cultural iden-

⊕



"The Atlantic Wall Linear Museum"

As the only place where objects, landscape and memory can effectively meet and relationships be drawn between a multitude of elements, emphasizing certain characteristics and values, the website will be a real "Web-Museum".

As a didactic instrument capable of reaching a large audience, over a vast territory, the Web-Museum represents a shared archive for conserving and displaying following the strictest museum traditions - a heritage whose value and vastness contribute to legitimizing the existence of a Europe both geographical and socio-political.

The website, besides serving as an efficient way to communicate and present maps, photographic and textual material resulting from research of the Atlantic Wall will also serve as an centre with hyper-textual links to put those interested in contact with an entire network of other sites and a selection of critical works about the Atlantic Wall, available on the web

⊕



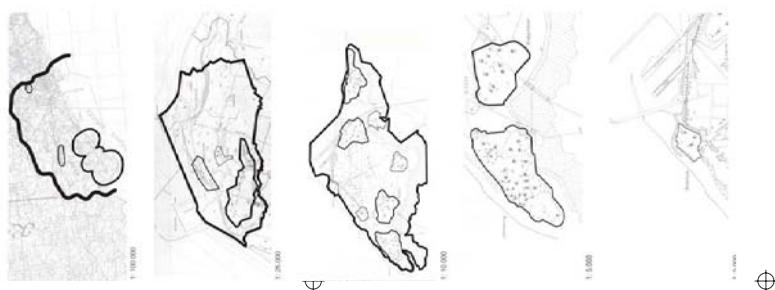



gennaro postiglione



AVV\* avvicinamento

elaborato grafico esistente dalla tesi di laurea di Daniela  
Caro et Estef Gómez, 2006



⊕

⊖

⊕



⊕

⊖

⊕



⊕

⊕

⊕

Reassembled map of Atlantikwall batteries and fortresses  
engineers, 1944-45. Maps of France, Belgium and the  
Netherlands SHM; map of Denmark, Germany and  
Norway BAHC; map of Channel Island PJ  
maps courtesy of Atlantikwall League Museum collection.  
2005-2006

\*atlantikwall



⊕

⊕

⊕

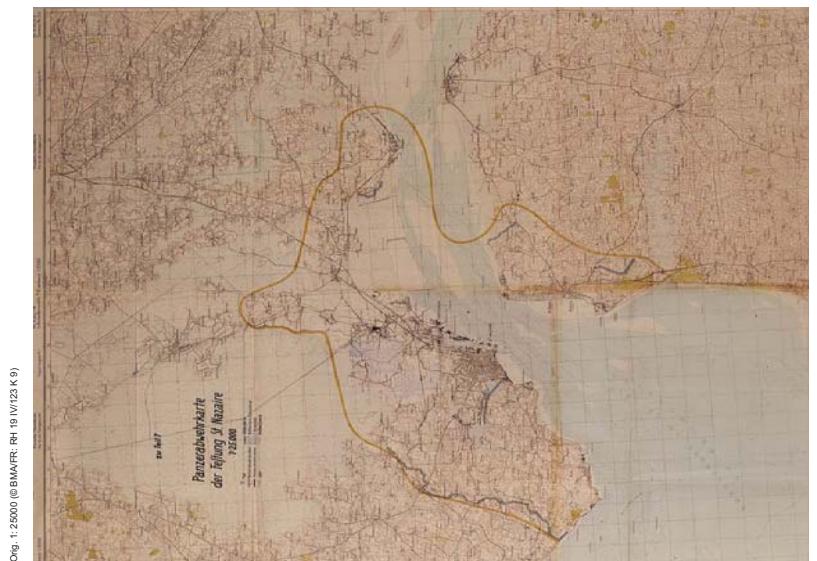
⊕

⊕

⊕

Excerpt from:  
Carte de l'état des travaux défensifs de la région du  
génie de Corsege, Or 1:100000 1916, et 26e Fe-  
tus 1917 (former Zabidj) 25 June 1944 © MM

\*paese



⊕

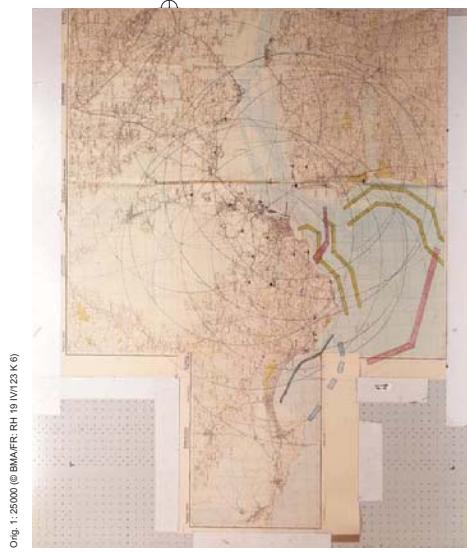
⊕

⊕

⊕

⊕

⊕



\*territorio



⊕

⊕

⊕



Legatoz orig. 1:250000 (c) RA.K.703/273.9a

⊕



3.Hestied, Av. 4 Thyborøn-Bulbjerg, orig. 1:100000 (c) RA.K.700



1

1

1

⊕

1

1

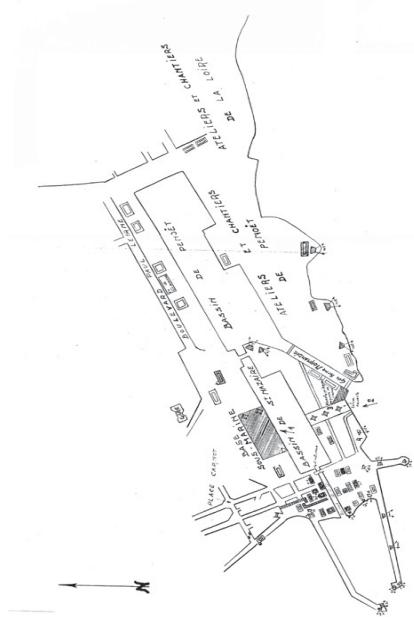


卷之三

\* stützpunkt

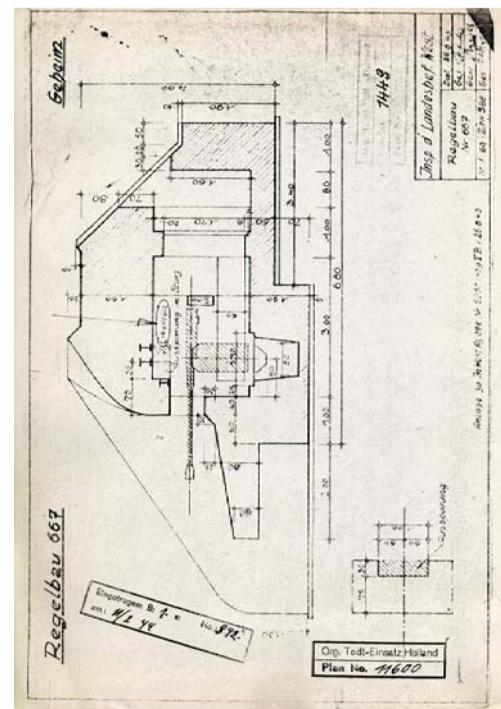
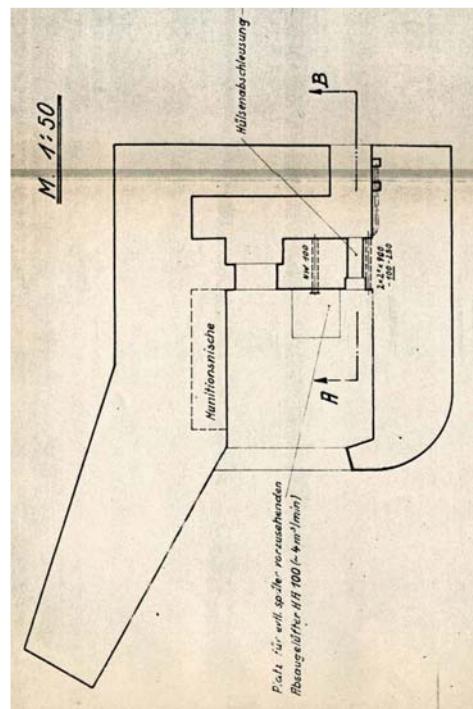


Plan n° 112 - V



PORT ST. NAZAIRE





⊕

⊕

⊕

⊕

⊕

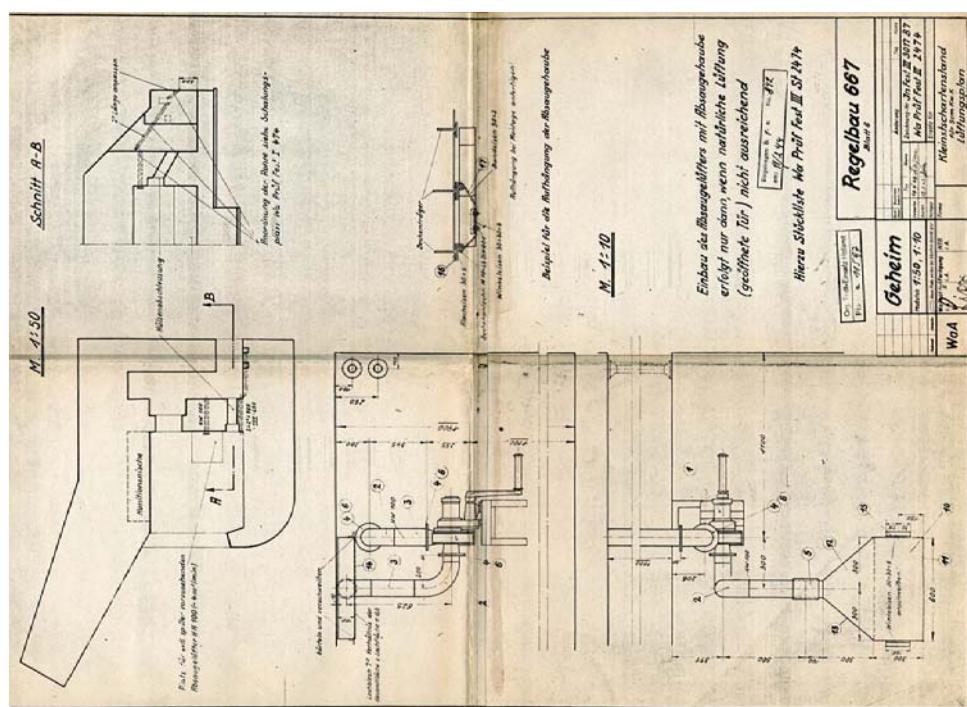
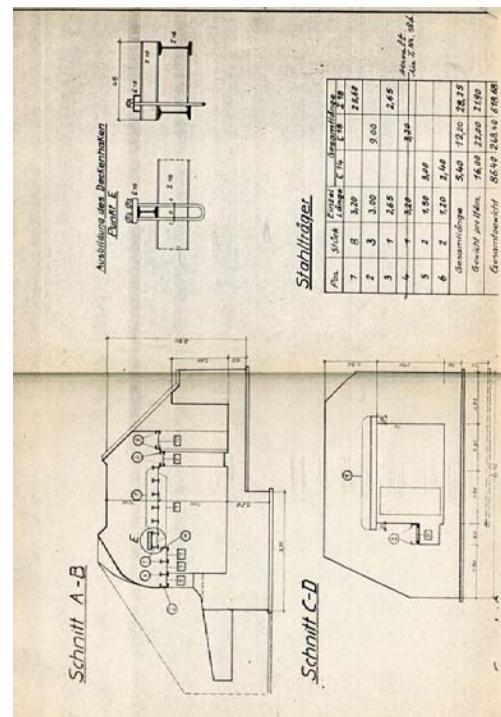
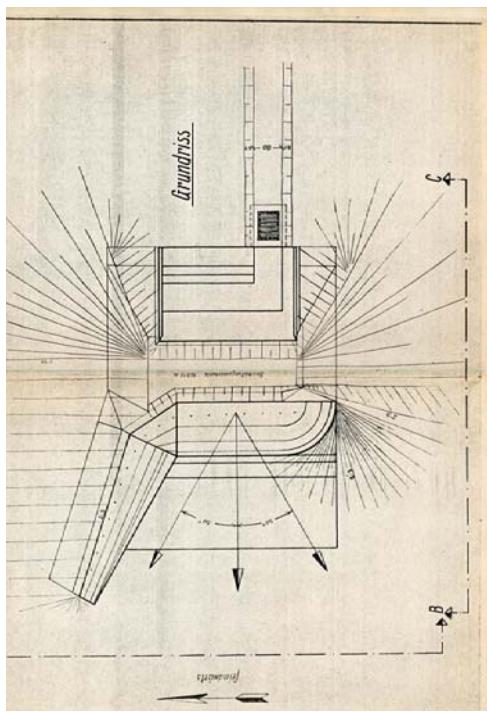
⊕

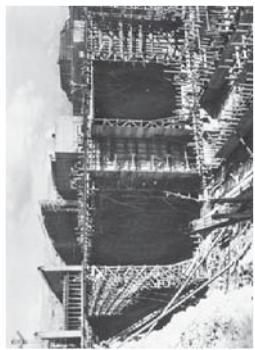


estratti originali dei "Tiposetzi", i catalogo completo  
di tutte le tipologie di forniture

\*tipologia

image originale della tipografia 667 estratta dal Typenheft





■



⊕

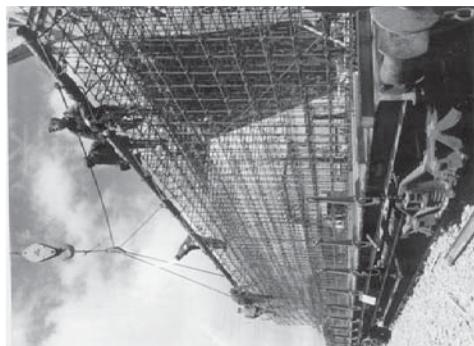
⊕

⊕

⊕

⊕

⊕





⊕

⊕

⊕

⊕

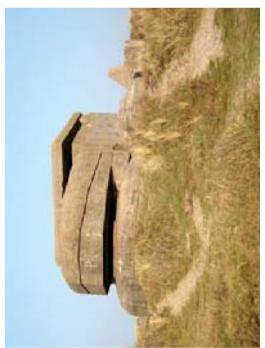


⊕

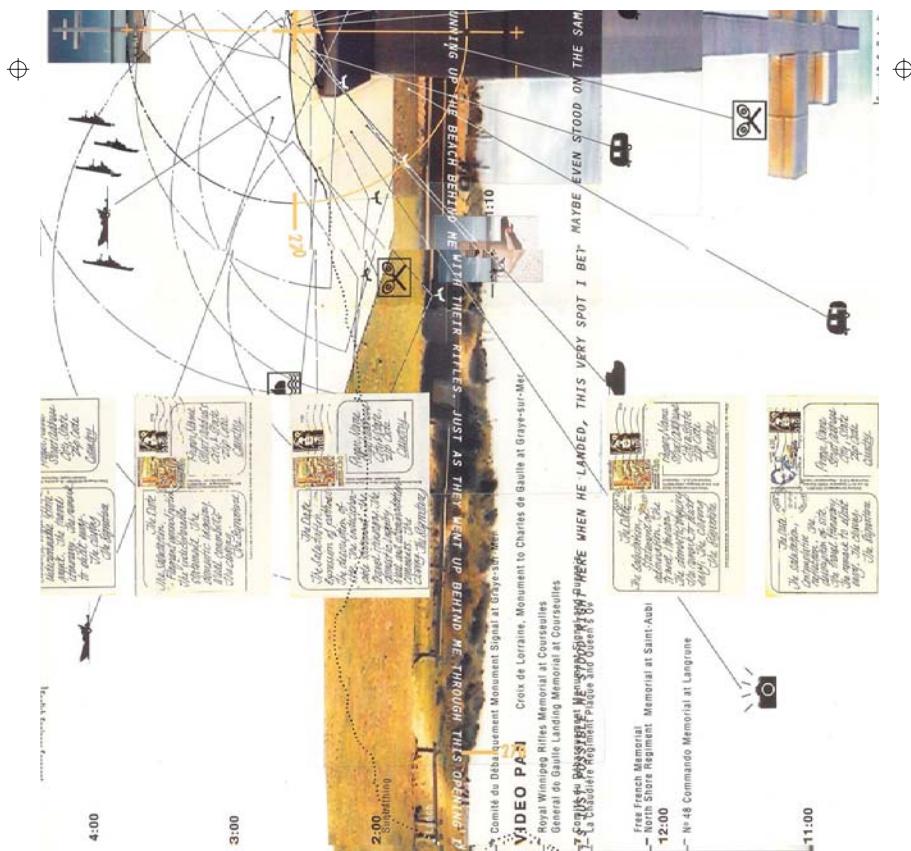
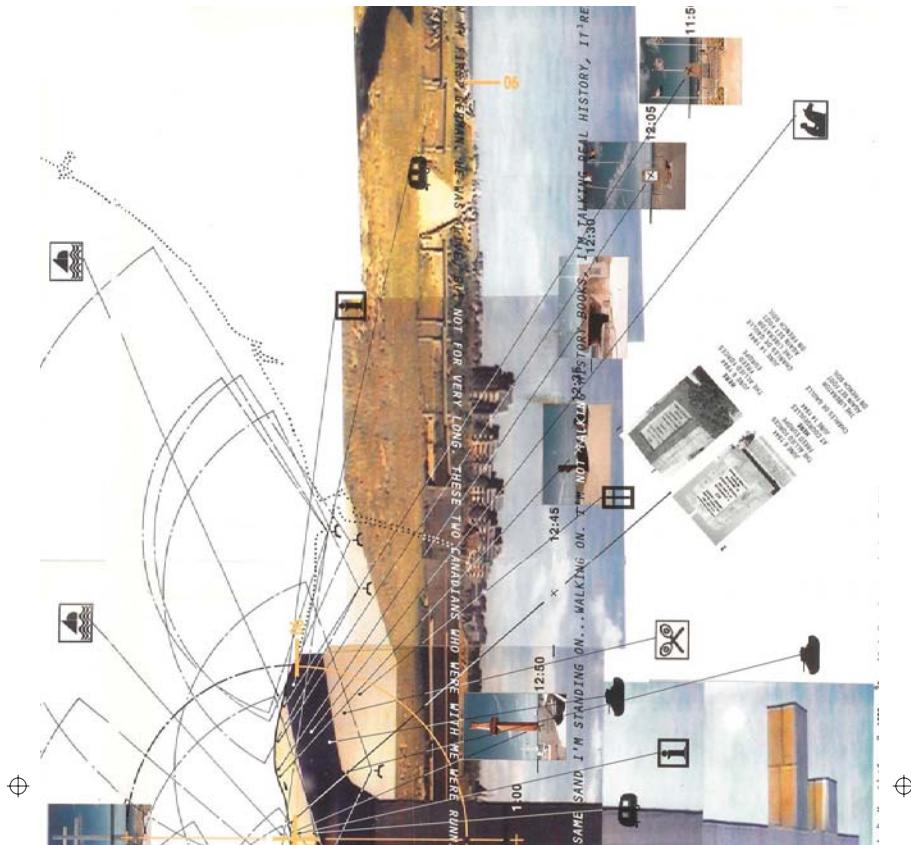
⊕

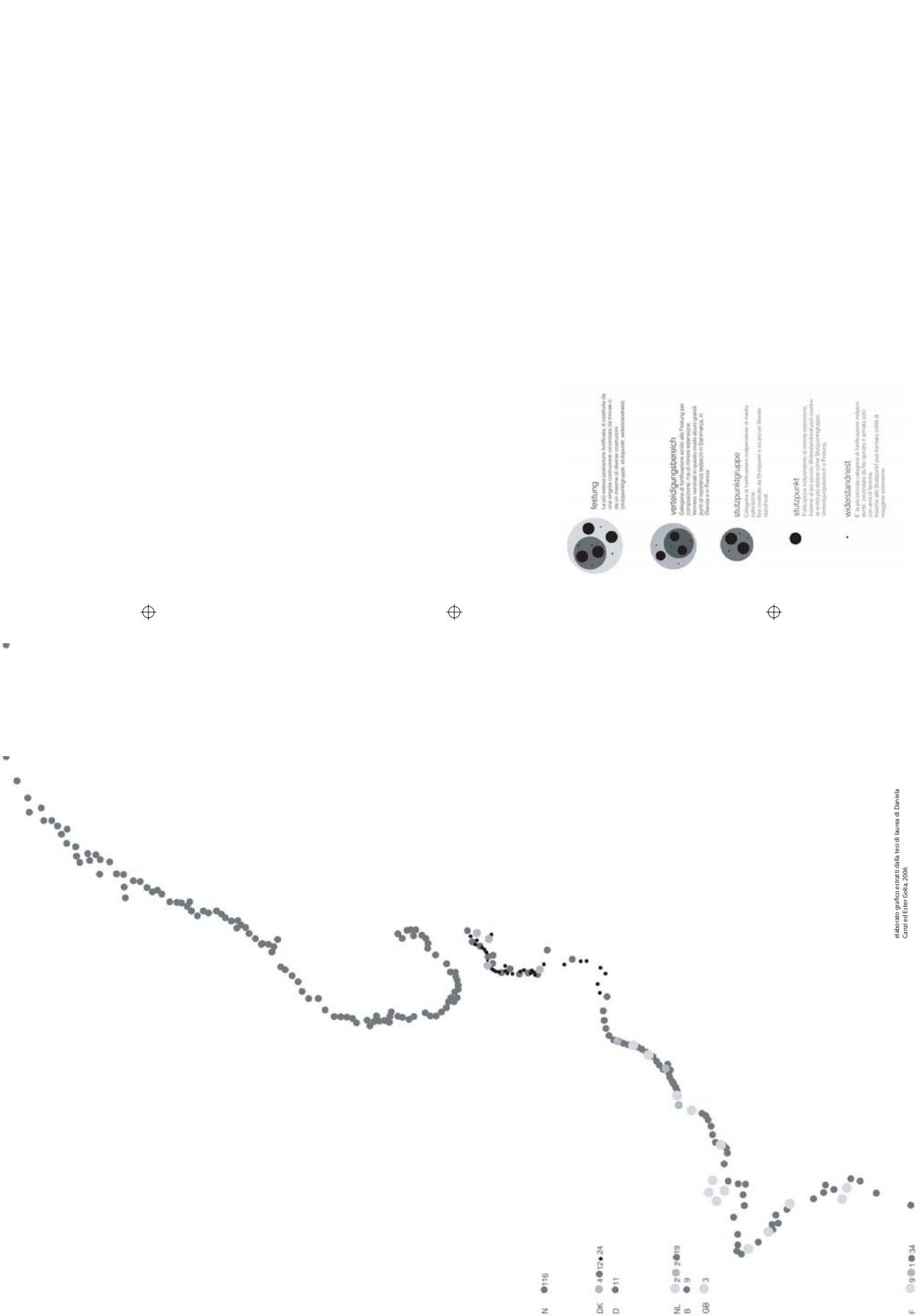




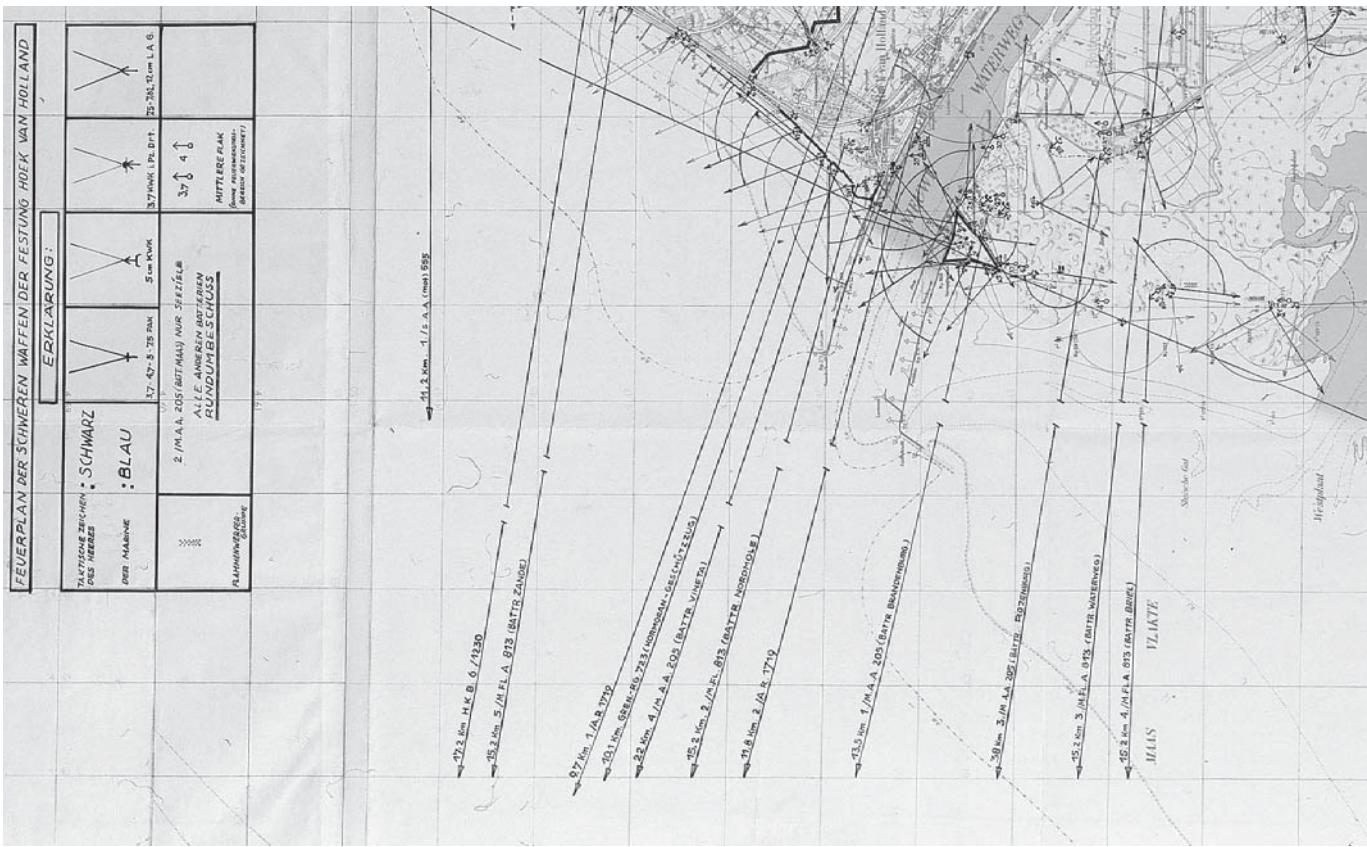


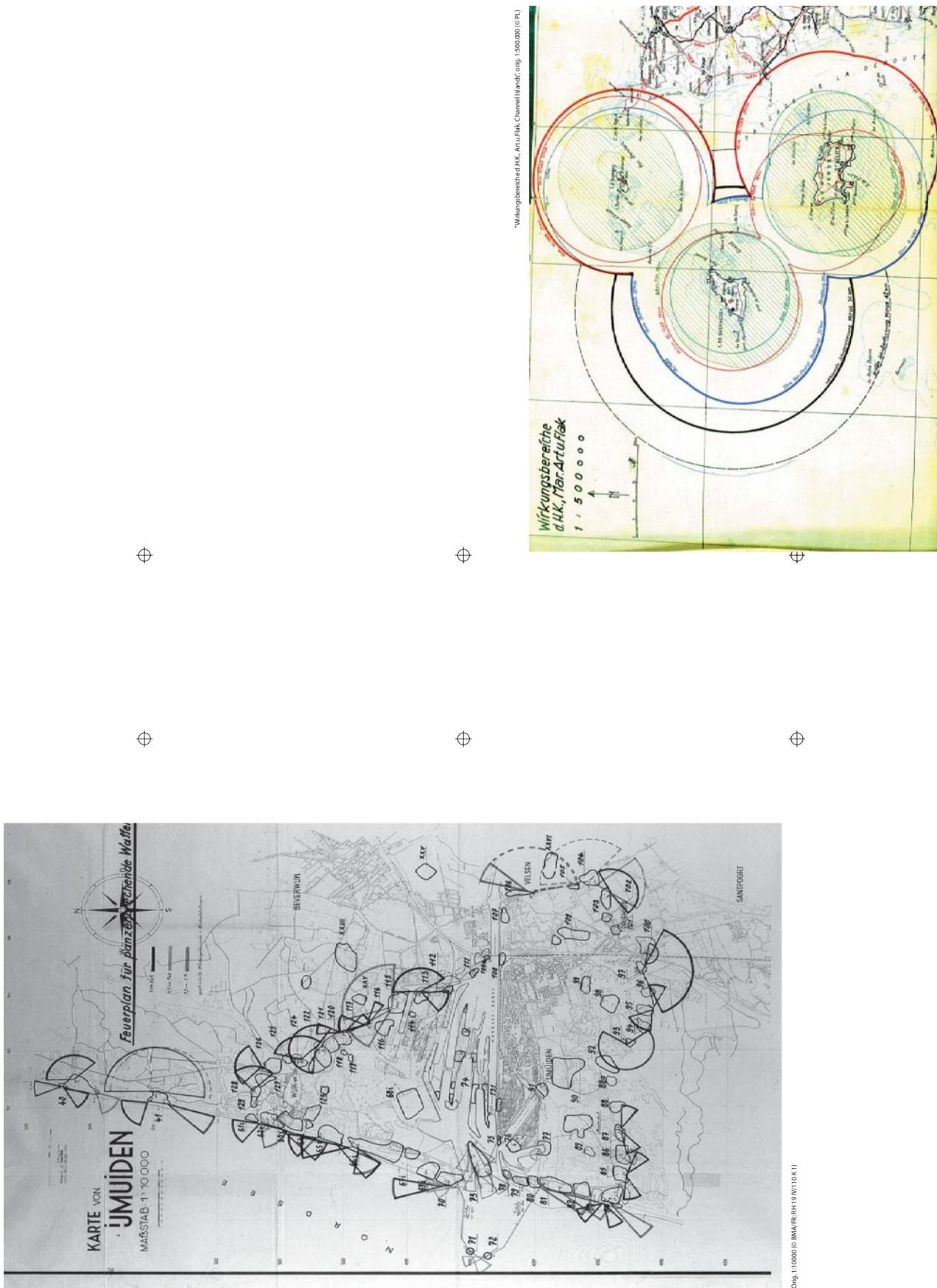
AVV\*strategie

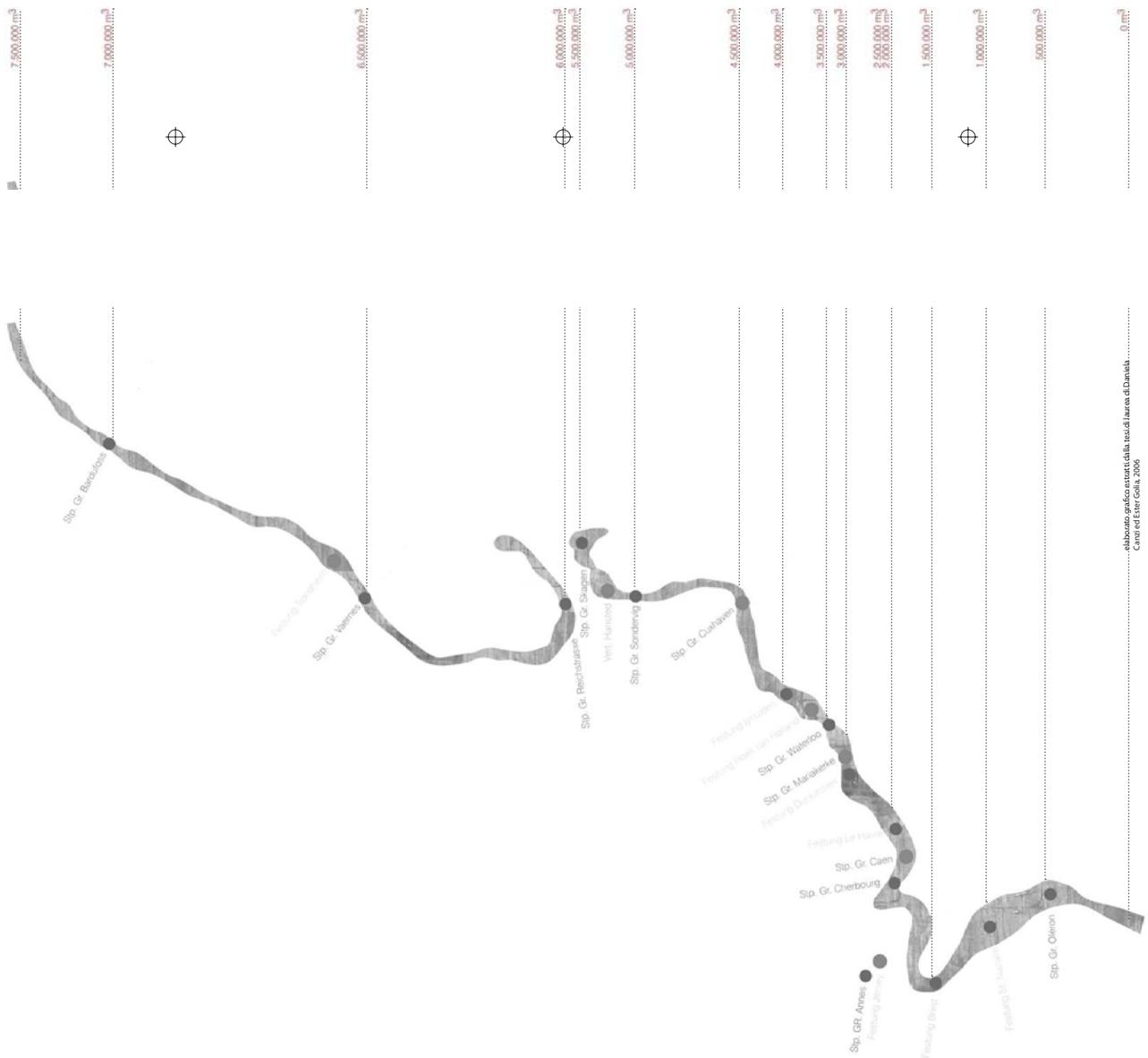




Elaborato su base dei testi di laurea di Daniela  
Gianotti e Enrico Golla, 2006

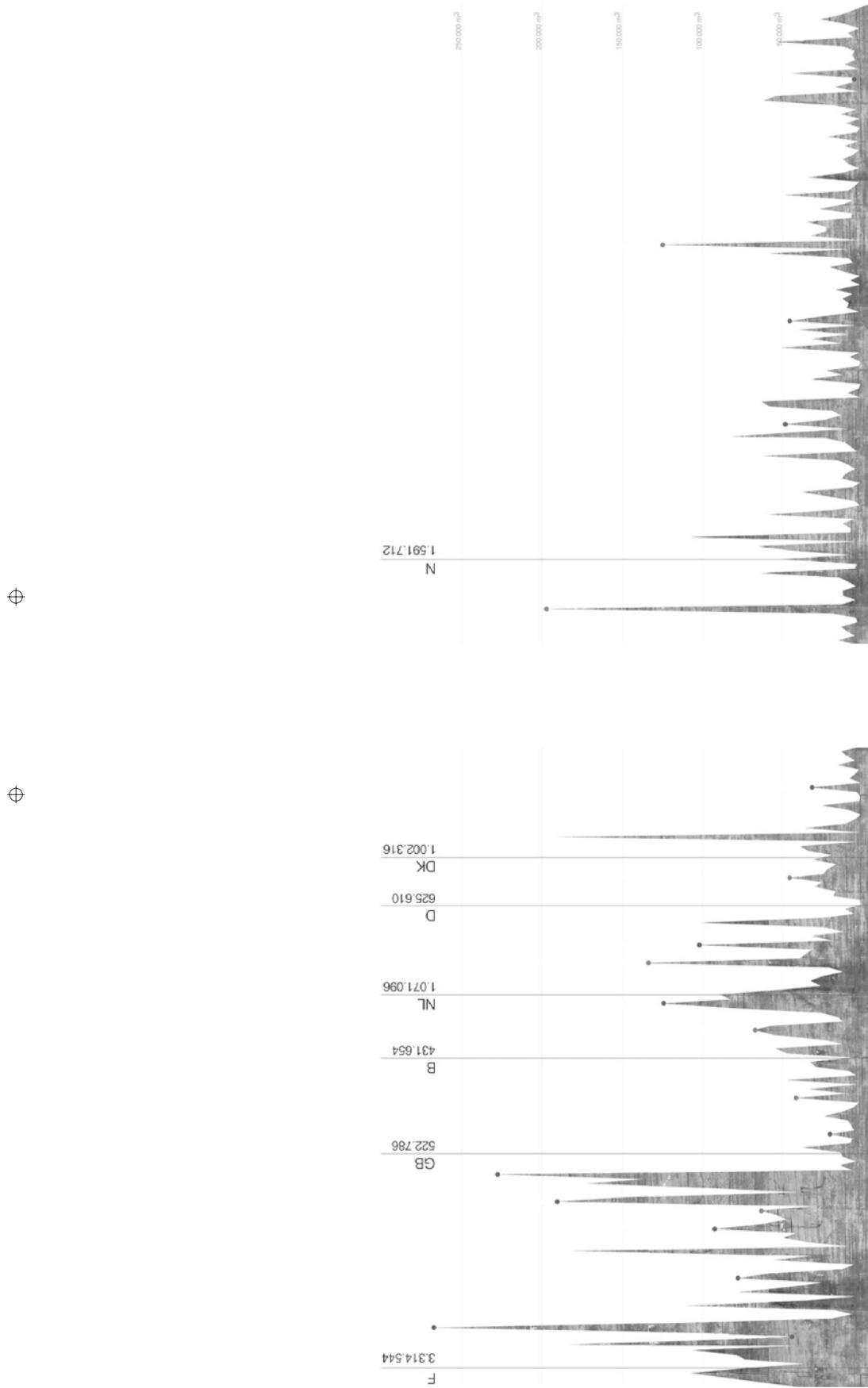


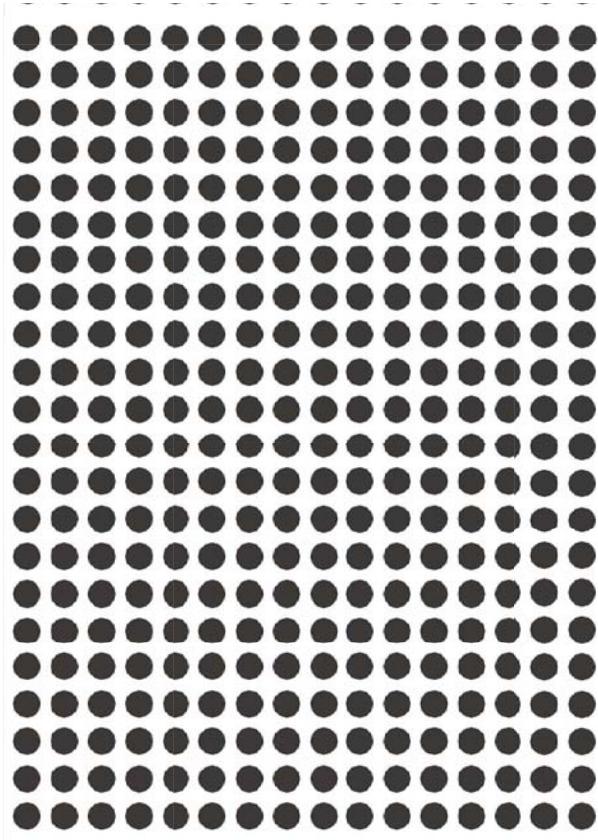
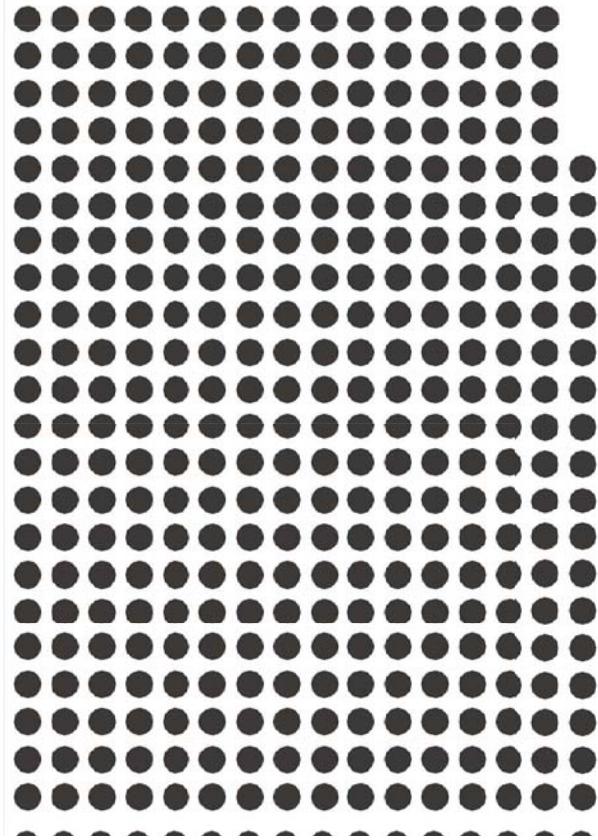




AWW\* cemento

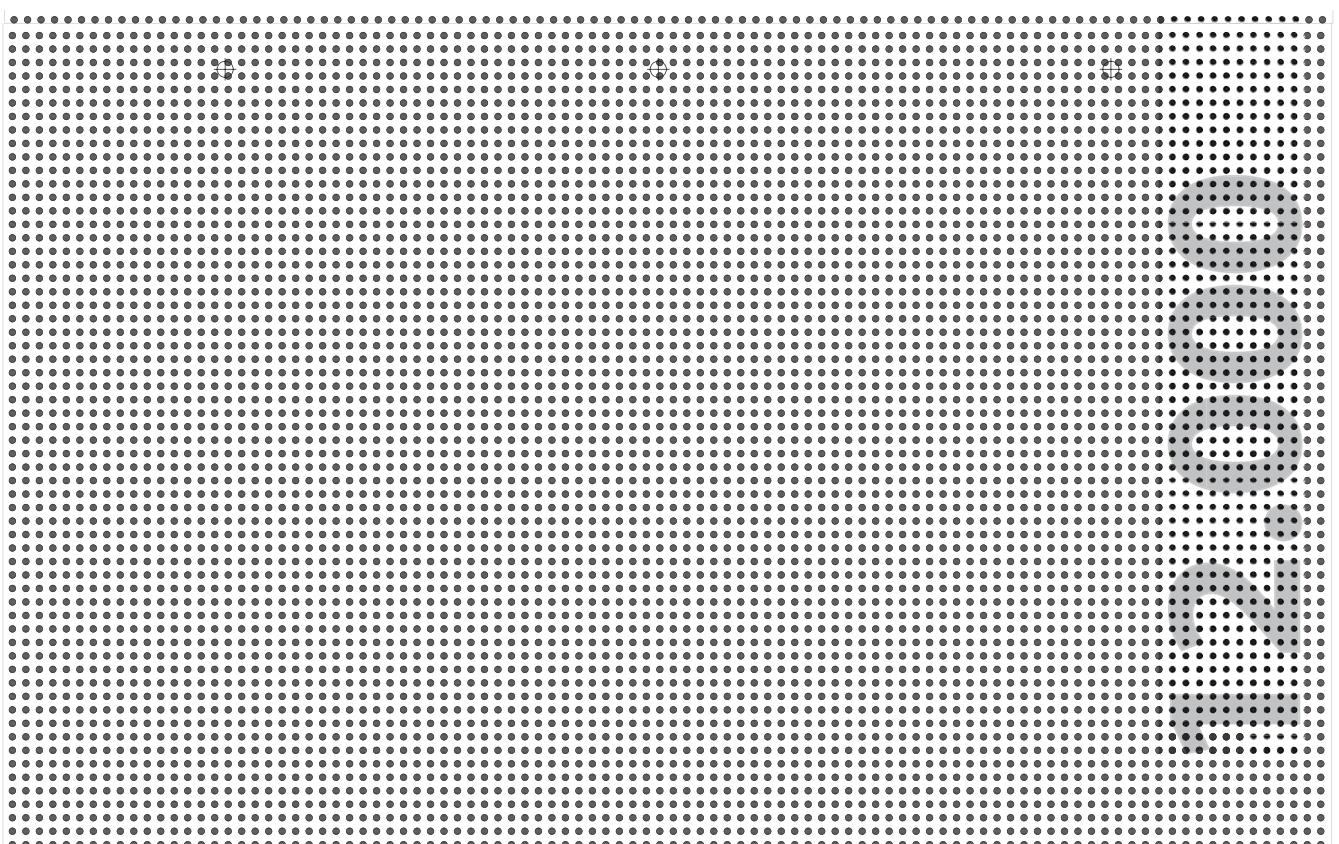
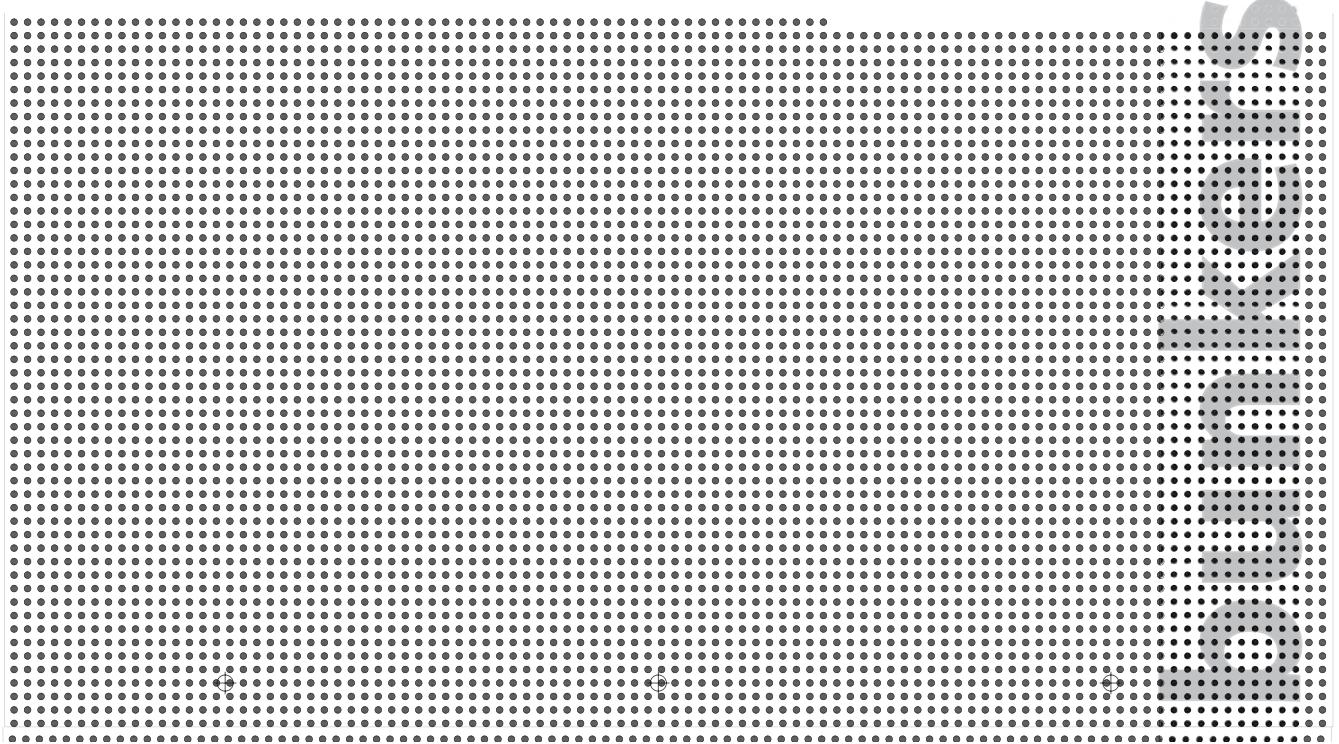
• elaborato grafico estratto dalla tesi di laurea di Daniela  
Caro ed Ester Gola, 2006



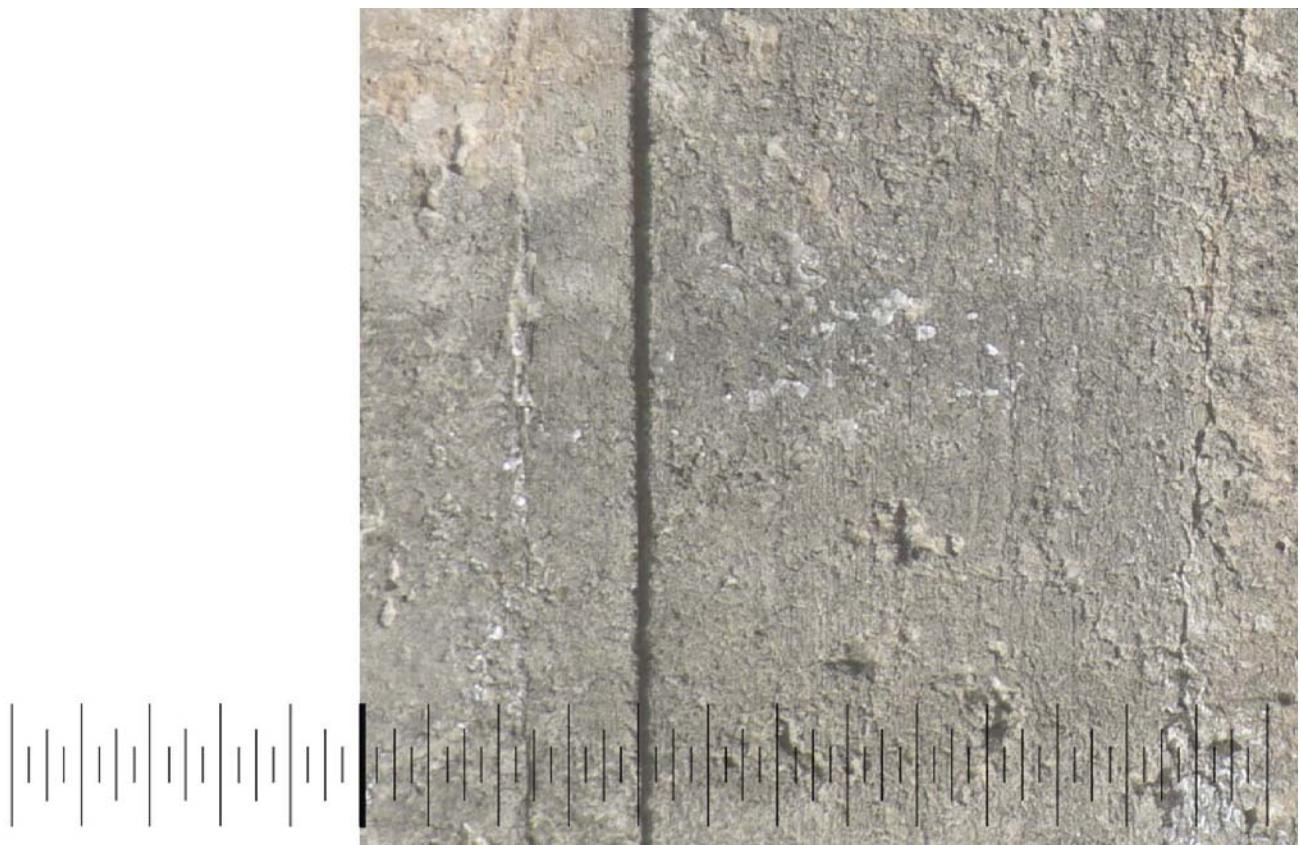
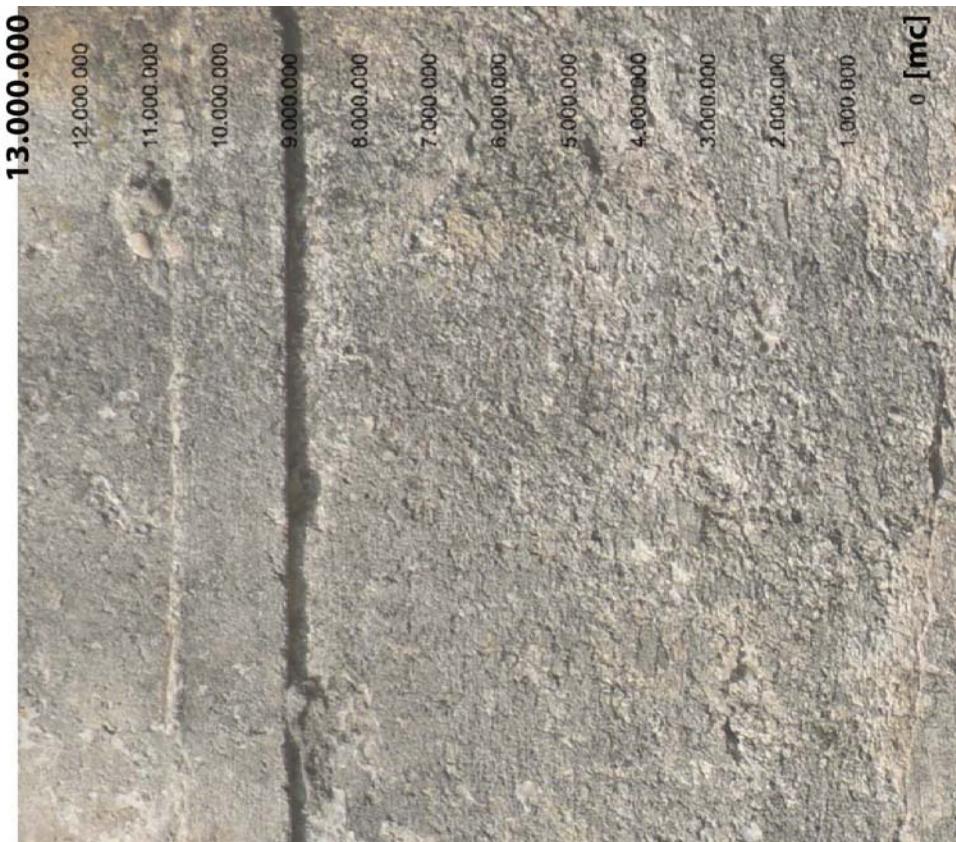


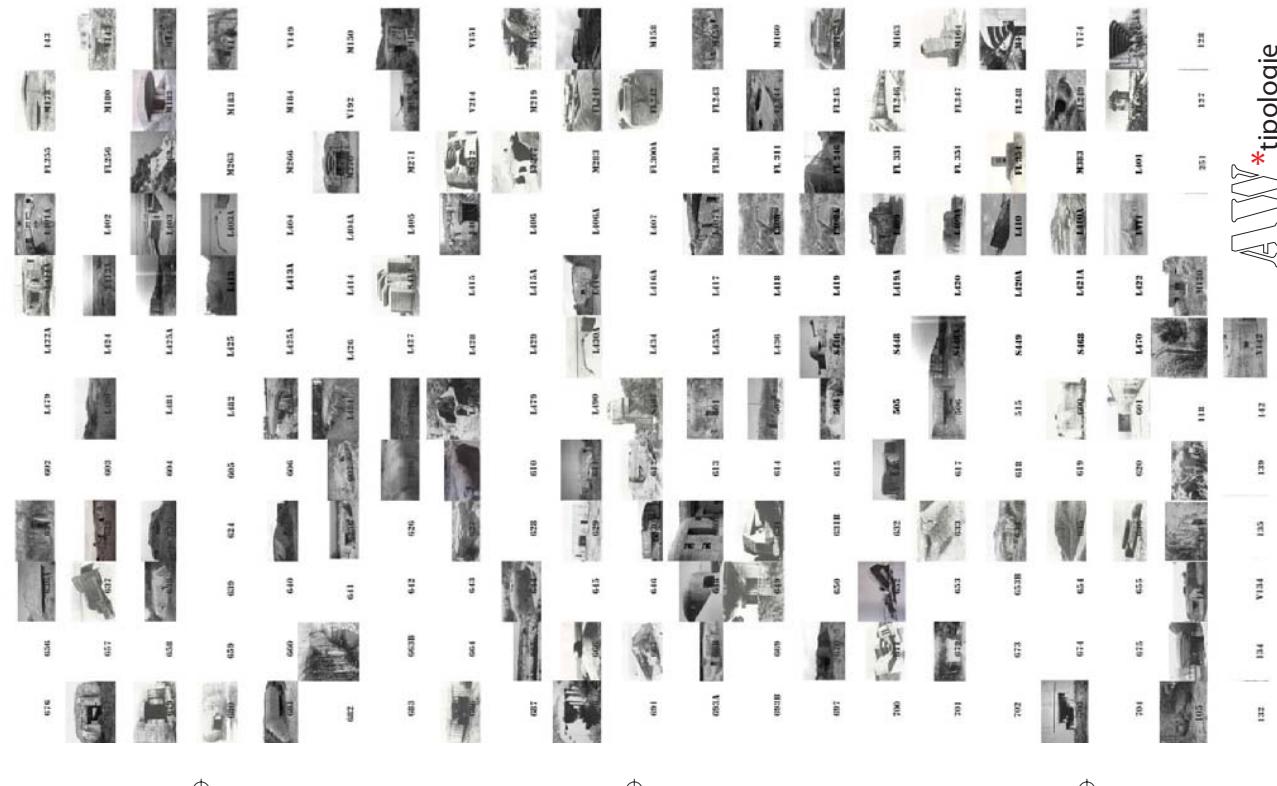
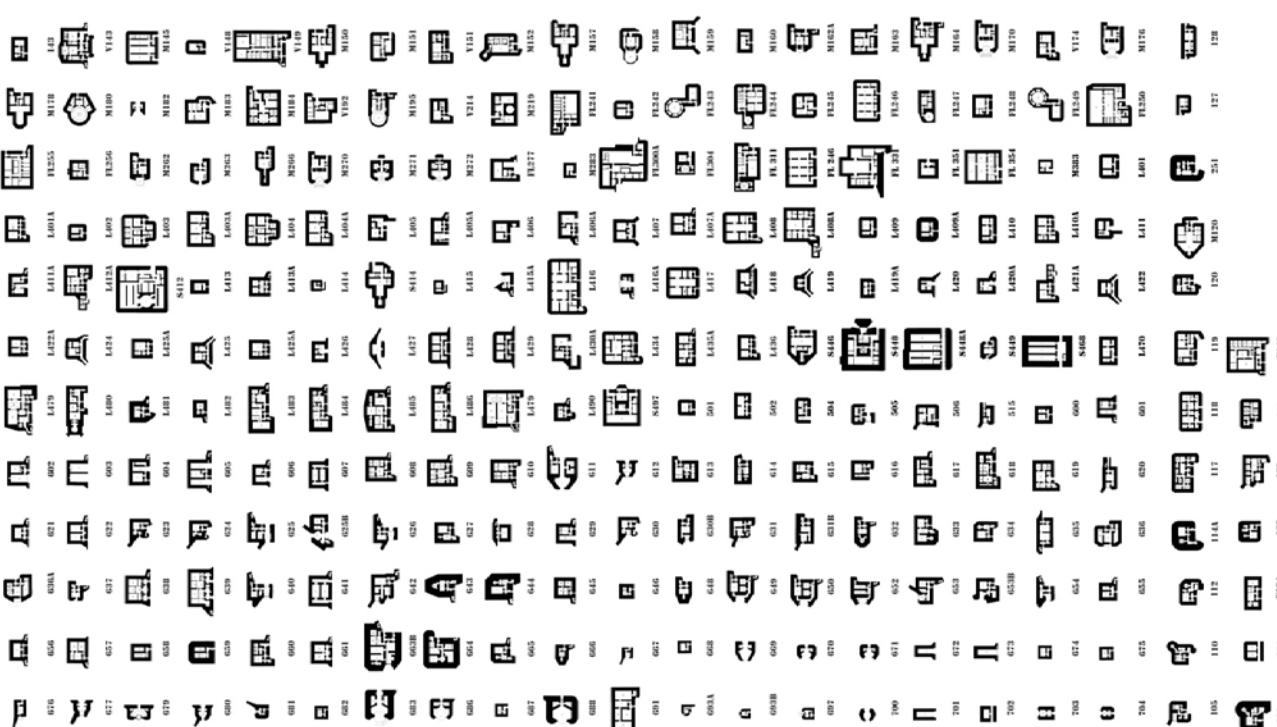
batterie

700

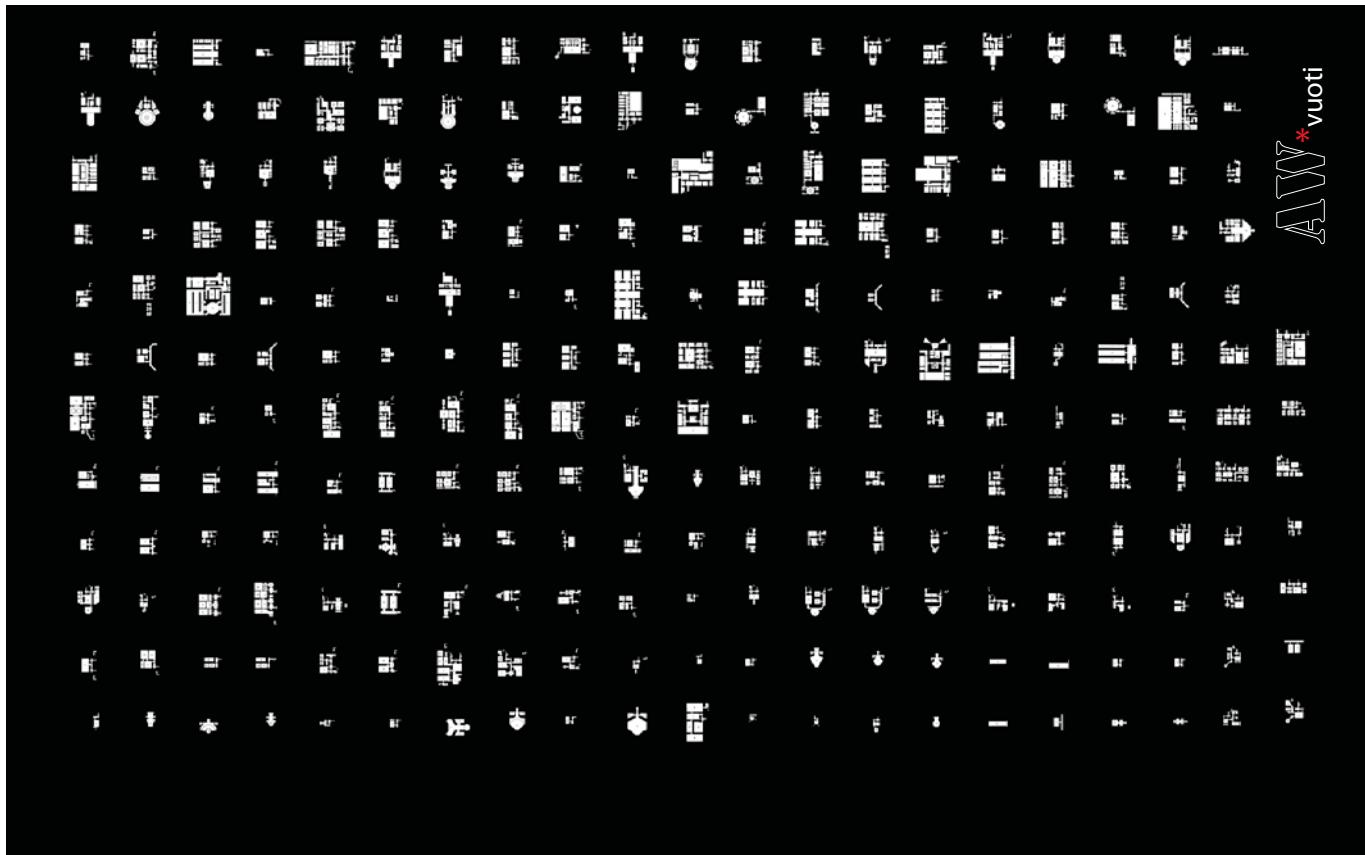


18.000.000  
17.000.000  
16.000.000  
15.000.000  
14.000.000

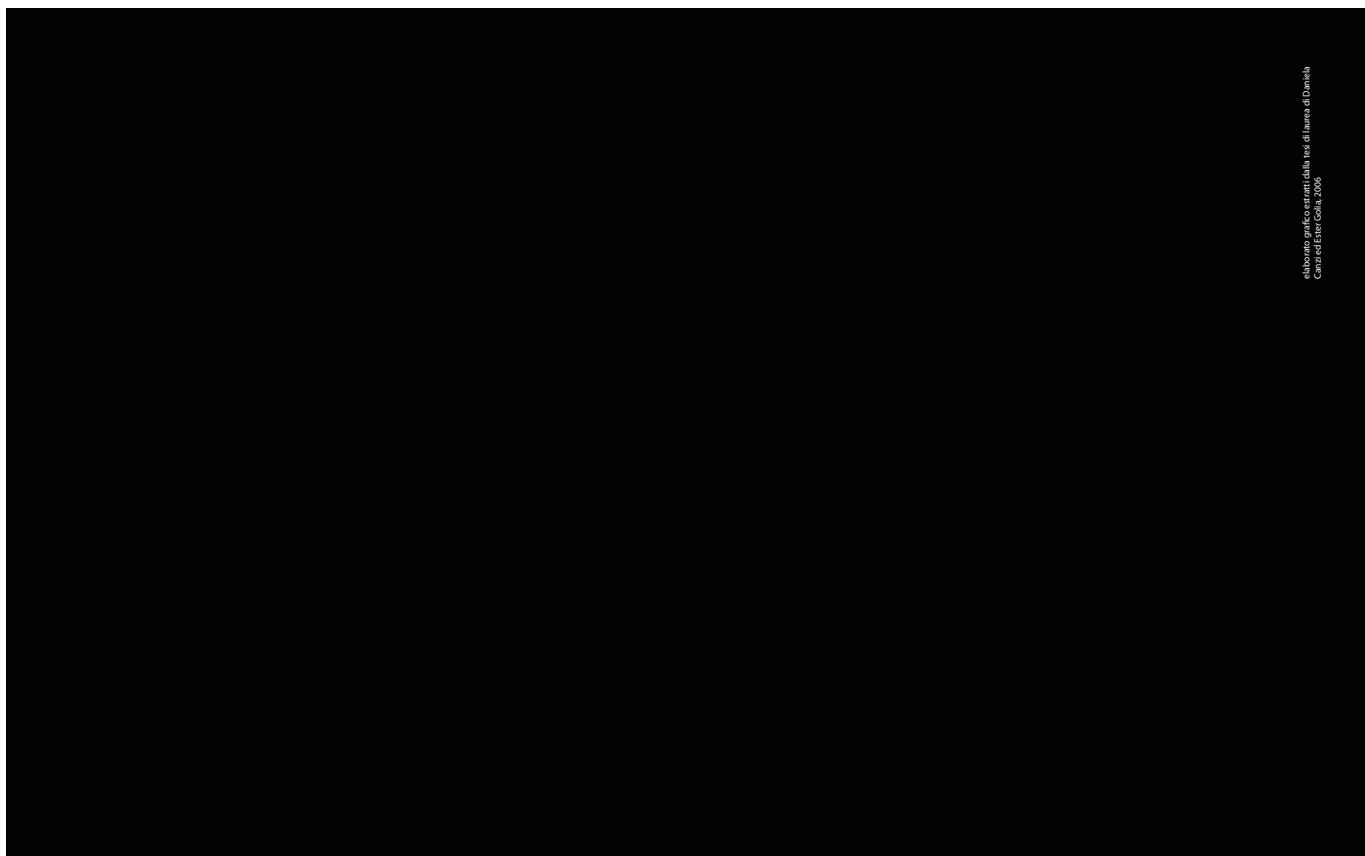




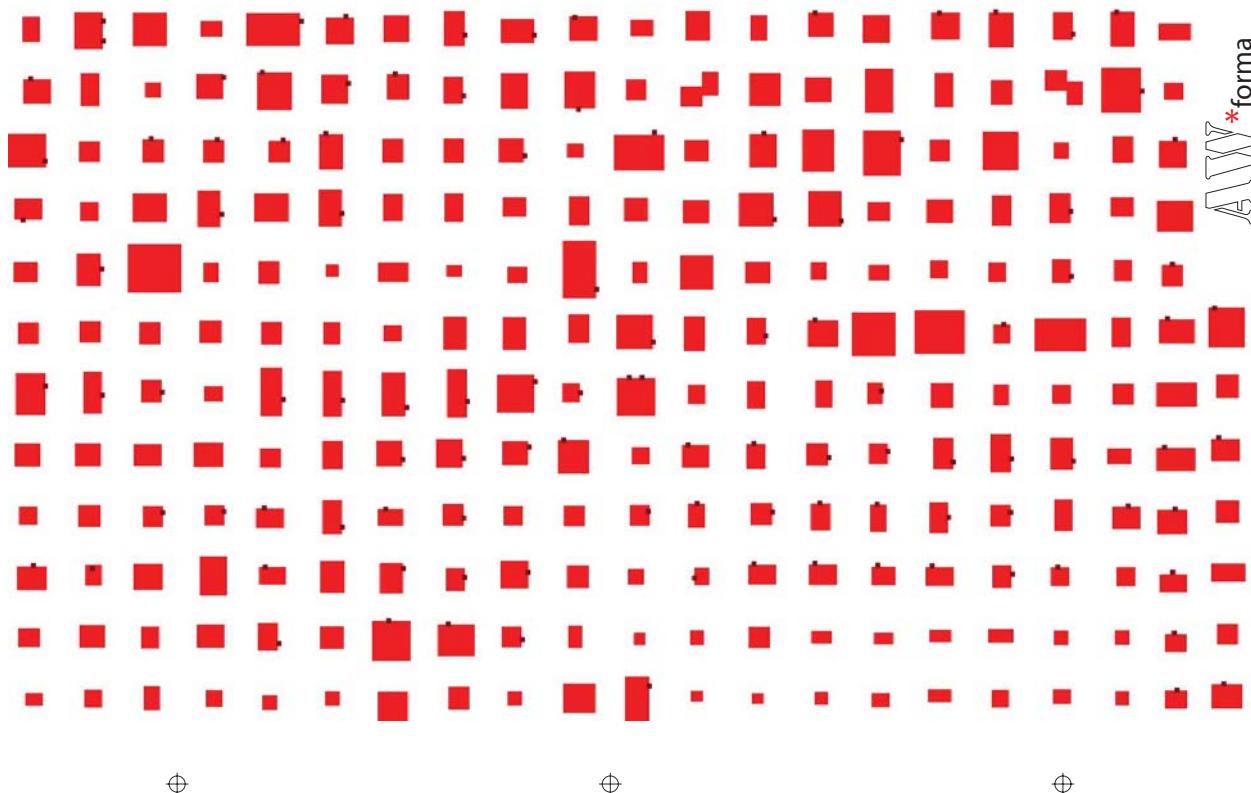
AV\*tipologie



AVV\*vuoti



Collezione di 60 quadri esposti dalla tesi di laurea di Daniela  
Caro dell'ateneo Golia, 2006



⊕

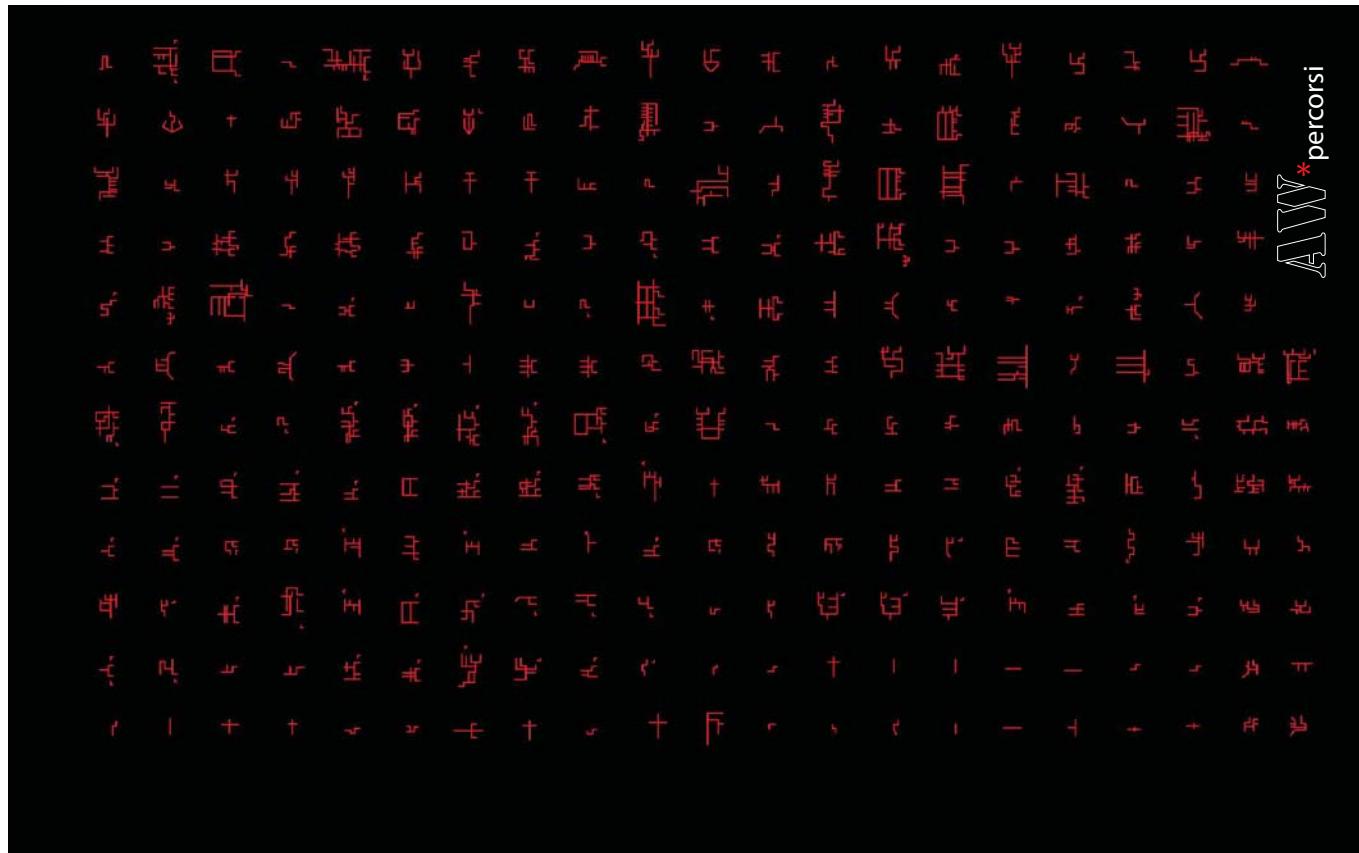
⊕

⊕

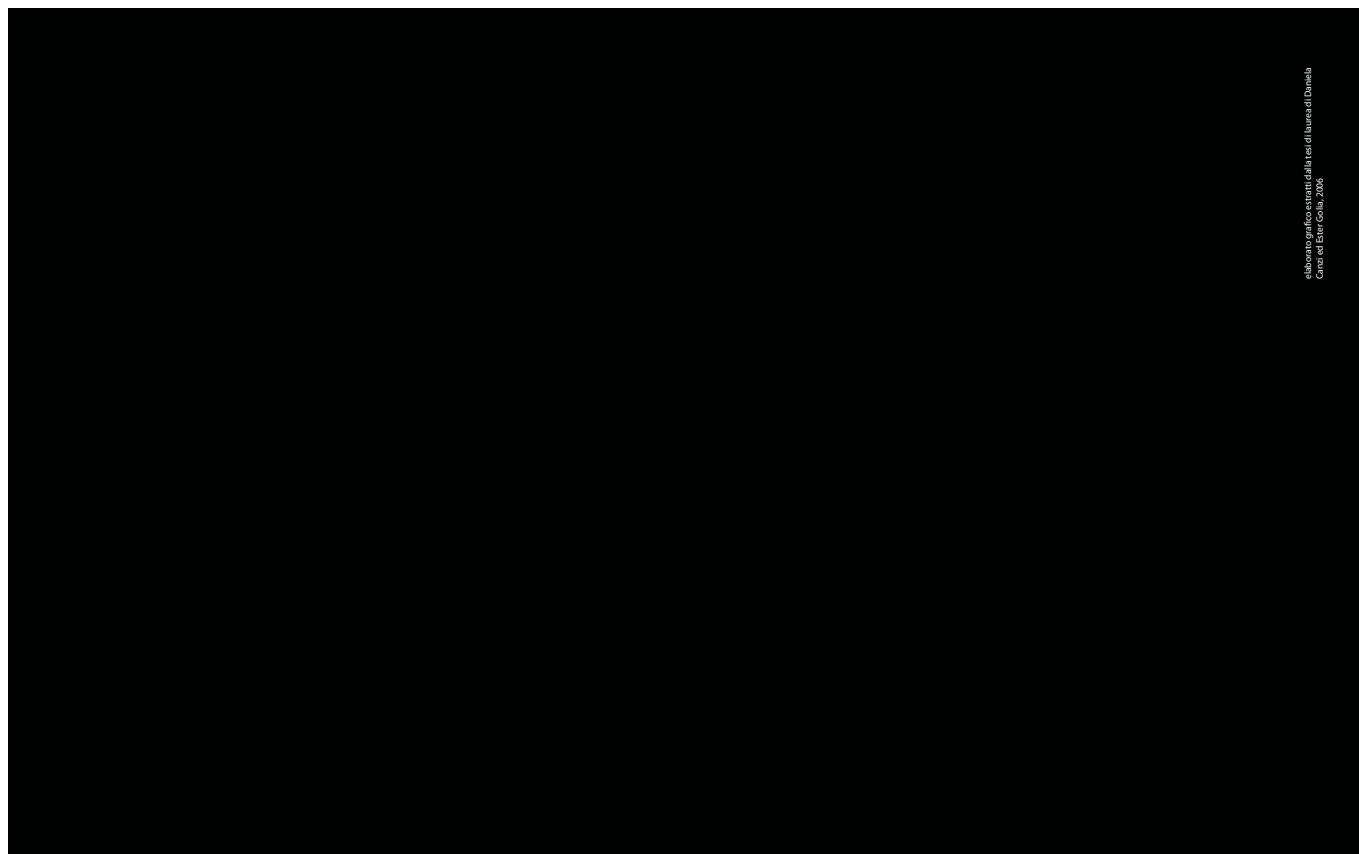
⊕

⊕

⊕



$\Delta \nabla^*$ percorsi



Glossary of terms used in the paper  
Glossary of terms used in the paper

**AW\***essenza



⊕

⊕

⊕

⊕

⊕

⊕

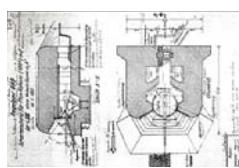


\* La costruzione dell'Atlantikwall frutta e accelera i processi di industrializzazione dell'edilizia. Sono le edicole di Fritz Todt a cuore affidati tutti i lavori del genio militare dell'II Reich a realizzare tutta l'infrastruttura.

\* Il nuovo materiale appare capace di dare espressione "pura" al programma funzionale, di seguire e adattarsi alle esigenze dell'uso e della produzione.

\* Le Corbusier maison Dom-in-ho, 1915, è l'idea di industrializzare la costruzione della casa, affrontando la questione in modo strutturale e non ingiustificato come invece fu negli stessi anni Perret che cerca un canone per il nuovo mestiere di tecnica.

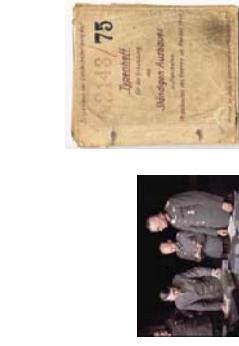
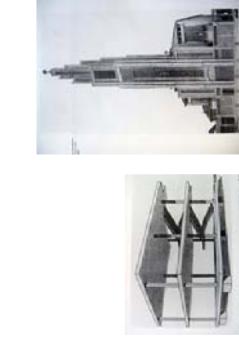
\* Tutti riduce il "Typenheft", il catalogo completo di tutte le tipologie di bunker necessarie a proteggere il fronte occidentale.  
Nei Regoli au Compte edito 2010, matiere e costituzione convergono



## \*The Atlantic Wall: bunker and as modern architecture

**Introduction**  
On the 15th of March 1941 Adolf Hitler for the first time talked about the "Atlantikwall", which was supposed to defend the Fortress Europe from the invasion coming from the West. On the 23rd of March of the next year in the Directive on War no. 40, the Atlantik Wall was officially established. Hardly a month after Albert Speer succeeded Fritz Todt, who died in a mysterious air crash, as head of the organization, that retained its former name, and supervised the construction of fortifications, mobilizing thousands and thousands of people among them prisoners and deported. Hitler's project was aimed at constructing a line of foxholes, a sort of backbone to Europe facing the ocean (Rolf, 1981). Vrillo, who took photographs of these concrete constructions between 1958 and 1965, talks of modern monoliths, "small-sized temples without religion", crypts that prefigure the Resurrection. "A foxhole" (stuzpunkt), he writes, literally means "strong house" and not "false house" as stated in dictionaries; a reinforced house, an armor that surrounds a soldier but also a form of disappearance" (Vrillo, 1968). Our research-work highlighted an issue already raised by the French architect and afterwards by (Diller & Scofidio, 1995);

"L'architecture, c'est avec des matières brutes, établir des rapports émouvants".



the close connection that exists between these architectures of war and many buildings planned by the Modern Movement, but also bunker as a point of reference to a great part of modern & contemporary architecture. Bunkers as an icon of modernity (Postiglione, 2005).  
The research entitled "The Atlantic Wall Linear Museum" [1] promoted and developed a valorisation project with the aim of bringing the vast heritage of WWII built along the Atlantic coast back into the world of cultural heritage but also in the one of architecture. The project was actually intended to draw attention to the architectural, aesthetic and landscape value of the Atlantik wall; understood as a trans-national cultural heritage.

Horizontal vision, aesthetic fascination and territorial dimension. Bunkers are based on the privilege of a horizontal rather than a vertical vision; windows, as Le Corbusier wrote (Le Corbusier, 1923), will no more be vertical, but horizontal. They follow a new view of the world imposed by the cinema, an aspect which appears to be dictated more by a cultural factor than by a true technical need; and in bunkers this horizontal cut perfectly corresponds to the observer's eye movement through the sights of an au-



tomatic weapon while observing the horizon (Belpoliti, 2006). Fruit of desire and necessity to control, "to survey", bunkers deprive a place of its genesis, absolutely atypical, these constructions respond to communal principles merging the necessity to control the horizon with the necessity to generate networks, to built-up a system. A system of points, isolated but at the same time kept together by a dense network of communications and infrastructures; often incapable of looking at each other, they are placed in a mutual relationship only according to the Command Posts position (Rolf, 1980).

This is the establishment of typological superiority as opposed to the topological one, so dear to a great part of the recent and more distant classical architecture: the organization of forms is in no way related to the context; if not functionally, which enables an interpretation of the bunker as the archetype of tumulus in its double acknowledgement of a monument and a tomb. Monumental is its desire/ necessity for eternity (of being indestructible); it is tomb-like because of its rejection of the external world in terms of topos and installation (in order to be invisible). It is an architecture that becomes

\* Il manufatto inteso come "prodotto" comporta la tipizzazione di tutti gli impianti: dalla conformazione spaziale ai sistemi di areazione.

- la versatilità del CA consente di dare forma compiuta ed esatta al programma funzionale: un programma di usi, di tempi di realizzazione, di tempo di esercizio, di sicurezza

L'impone la Cina come modello, ma consente di realizzare altri studi con riferimenti alla solita architettura della dinastia Tang. Inoltre il vino espresso nello studio (vedi E. M. Mendelsohn, Torri sinfonie) è un vino espresso nello studio.

A black and white photograph showing a massive, intricate metal lattice structure, possibly a bridge or part of an industrial facility. The structure is composed of many intersecting beams forming a grid pattern. It spans across the frame, with some sections appearing closer and others receding into the distance. The background consists of a sky filled with scattered clouds. In the bottom left corner, there is a small, dark, irregular shape that looks like a piece of debris or a hole in the original film.



subterranean and excavated, vanishing in the same landscape it is inserted in, out of the need for mimetic sis and out of indifference to the context. Bunkers, purely abstract in character and value (abstraction of place more than abstraction of use), seem also to suggest their possible future: unable to return to their original function, they appear to be mere significant objects which cannot fulfil a purpose that does not imply an absolute elimination of any function. The aesthetic dimension of bunkers can be considered a new interpretative parameter, not only in relation to modernity. The excavated compact stereometric monomaterial form interplays and influences an emblematic manner the canon and many of the current architectural trends: from monomaterialism to the installationism of the land art matrix, from the aesthetics of machine to conceptual abstraction that transforms material into pure matter. The relationship between construction and decoration is definitely broken in a manner that the latter no longer expresses the reasons of the former. The expressive aesthetic figurative value of the material takes the edge off tectonics, becoming pure language and proposing a path to architecture that, in fact, has become our present. What else should



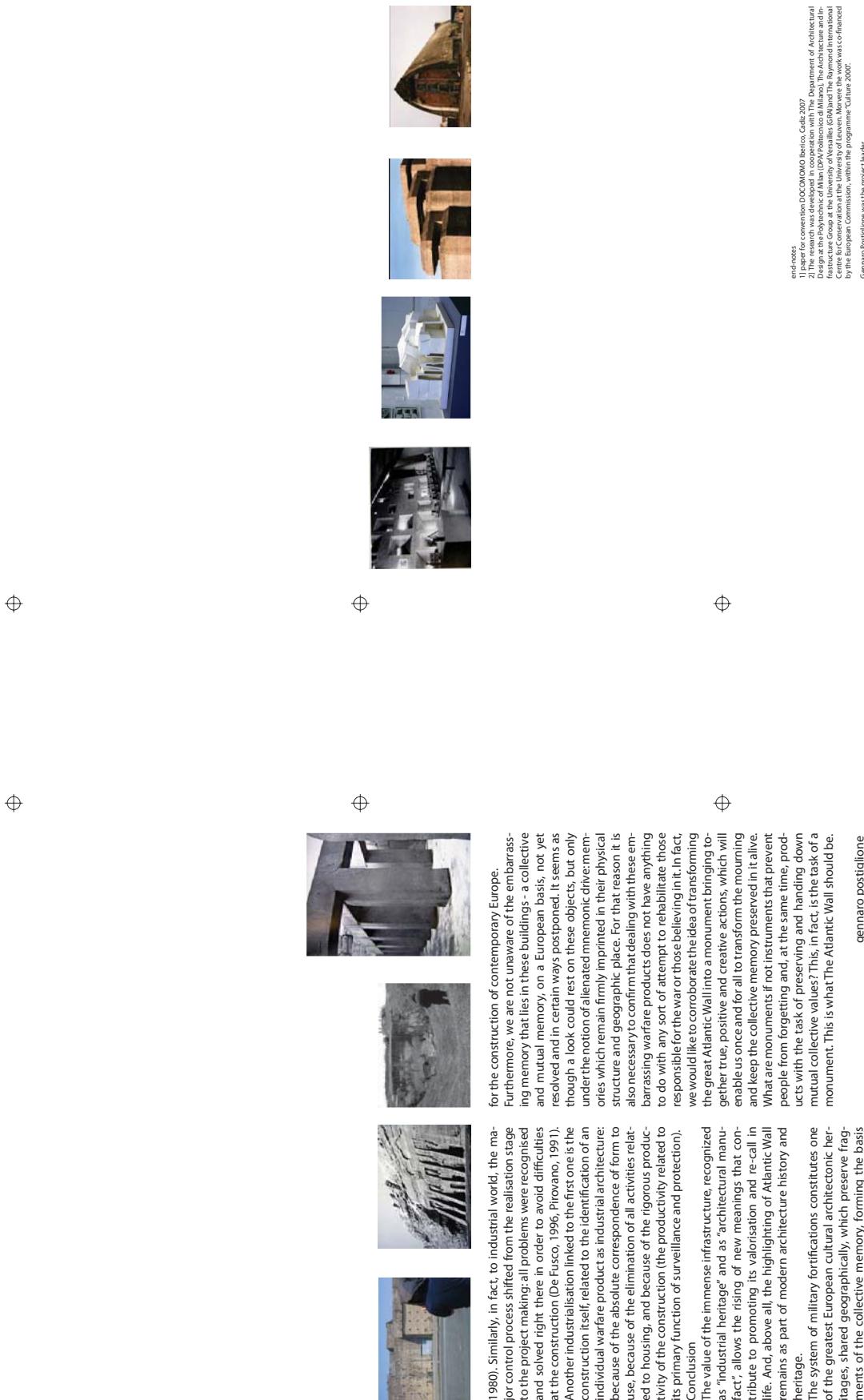
between pre-war and post-war architecture: a sort of bridge connecting different periods of Modern Movement. This enables the introduction of another aspect that the Atlantic Wall buildings have in common with modern architecture: the use of reinforced concrete, implies indeed not only an aesthetic, but also the industrial process of a construction system. Cement, monolithic architecture and industrial production Reinforced concrete is the material choose by modernist architecture. A liquid substance that, when poured into a mould, can serve to model any type of architecture and once consolidated, is left to be viewed. Already from the second half of the 19th century, the new material seemed capable of giving a clear expression to the functional programme, of following and adapting itself to the demands of use, of being a valid alternative to iron, thought as the construction material for excellence (Rassegna, 42/1992).

More than other materials concrete possessed all characteristics necessary to transform the construction process from handicraft into industry. Le Corbusier, with his search of the industrialisation of domestic architecture, appeared as a pioneer: from 1915, with the project of Maison Dom-Ino, to the realisation of Unité d'habitation in Marseille (1947-52). Even Auguste Perret, like many of his contemporaries close-related to the classical architectural tradition, at the beginning of the 20th century conducted certain architectural experiments using reinforced concrete, but his research – like the ones of many others – did not entail structural issues as much as linguistic ones: he was only looking for a canon for the new material (Singelieberg, 1972). Sowhen planning the Atlantic Wall began in 1943, concrete represented a feasible solution for the achievement of its goals, in terms of time needed for the realisation, in terms of efficiency of the form, and in terms of economising the process of project-making. Bunkers were seen as the perfect typology for interpreting the potentiality of concrete as recognized by many modernist masters. Todt industries compiled the Typenheft, a catalogue of all the bunker types needed to protect the Western Front, which included structures for very diverse goals from "Command Post" to "Ammunition bunker", from "Anti-aircraft hole" to "Tobruk", and so forth with hundreds and hundreds of different types, each of them meticulously planned into utmost detail, like an industrial product (Rolf

\* La dimensione cicipata è centrata dai bunker, vere concentrazioni di massa, stabilisce un legame diretto con le forme architettoniche e archetipi, trasformando il prezzo-  
cione delle testimonianze "in corso" e promuovendo una assistita archéologica "a  
caso". Questo è un punto di vista che si contrappone alla visione di André Bloc, a prima vista  
il rapporto sembra grande, "presso della memoria", il passato ha grande

\* la forma plastica del bunker anticipa la questione del valore estetico connesso alle  
forme tecniche. Cf. da "matérice constructivo diverse materia para" (vedi Le Corbusier  
e L. Ronchamp 1950-54, André Bloc, Centro Culturale in Iran, 1965)

\* la materia s'induce a forma pura per i suoi valori di ombra, masse e volumi; texture



1980). Similarly, in fact, to industrial world, the major control process shifted from the realisation stage to the project making all problems were recognised and solved right there in order to avoid difficulties at the construction (De Fusco, 1996, Pirovano, 1991). Another industrialisation linked to the first one is the construction itself, related to the identification of an individual warfare product as industrial architecture: because of the absolute correspondence of form to use, because of the elimination of all activities related to housing, and because of the rigorous productivity of the construction (the productivity related to its primary function of surveillance and protection).

Conclusion

The value of the immense infrastructure, recognized as "industrial heritage" and as "architectural manufactory", allows the rising of new meanings that contribute to promoting its valorisation and re-call in life. And, above all, the highlighting of Atlantic Wall remains as part of modern architecture history and heritage.

The system of military fortifications constitutes one of the greatest European cultural architectural heritages, shared geographically, which preserve fragments of the collective memory, forming the basis

for the construction of contemporary Europe. Furthermore, we are not unaware of the embarrassing memory that lies in these buildings - a collective and mutual memory, on a European basis, not yet resolved and in certain ways postponed. It seems as though a look could rest on these objects, but only under the notion of alienated mnemonic drives: memories which remain firmly imprinted in their physical structure and geographic place. For that reason it is also necessary to confirm that dealing with these embarrassing warfare products does not have anything to do with any sort of attempt to rehabilitate those responsible for the war or those believing in it. In fact, we would like to corroborate the idea of transforming the great Atlantic Wall into a monument bringing together true, positive and creative actions, which will enable us once and for all to transform the mourning and keep the collective memory preserved in it alive. What are monuments if not instruments that prevent people from forgetting and, at the same time, products with the task of preserving and handing down mutual collective values? This, in fact, is the task of a monument. This is what The Atlantic Wall should be.

gennaro postiglione

end-note  
1) Deter for convention DOCUMENTO Iberico Codice 2007  
2) The research was developed in cooperation with the Department of Architectural Design at the Polytechnic of Milan (DIA/Politechnico di Milano), The Architecture and Infrastructure Group at the University of Versilia (GIAU) and The Raymondi International Center for Research and Studies in Architecture, Italy of Leaven, where the project was financed by the European Commission, within the programme "all the 2005".  
Gennaro Postiglione was the project leader.

\* l' "materiale costitutivo" divenne "materia pura"; colonne texture grana forza o semplice superficie (vedi Luis Kahn, Palazzo del Governo, Dhaka 1962-83)

\* impiante spazialistiche anche che riprendono il tema dell'eternità affidata al monumento (vedi i templi di Ramses II, Abu Simbel, il tempio di Atena e Adad, Assur)

\* mette in evidenza il carattere di "nemico assoluto" dei bunker (l'esterno esiste solo come "introduzione" della linea d'orizzonte, è la visione contro il orizzonte che ne giustifica e ne governa la posizione



⊕

⊕

⊕

⊕

⊕

⊕



<sup>\*\*</sup> l'attrazione dal contesto trasforma i bunker in oggetti de-contestualizzati capaci, per contropunto, di mettere in moto una durevole comprensione dei luoghi.

<sup>\*</sup> la decorazione diventa l'elemento di mediazione tra manufatto e storia, rendendo contemporaneo (vedi Carlo Scarpà, Tomba Biagi, Semino (Treviso), 1972-73).

<sup>\*</sup> La dimensione estetica del bunker diviene nuovo parametro estetico per la modernità monomodulare composto stereometrico (come interpretato in maniera emblematica) identitaria di certo minimo architettonico





ATLANTIC WALL UNEAR MUSEUM