LANDSCAPE WAYS OF INTERVENTION USED IN RECONVERSION OF DISUSED OLD DEFENSE STRUCTURES

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Abstract. Because of the current world mutations, national security provides large complexity and requires new designing solutions for: security challenges, military technology, strategies and tactics, merging of structures, methods, techniques and technologies concerning security challenges, need for responding to social constraints (democratic rights, law of war), and attempts to surpass the opponent/enemy/partner, etc. So, in order to reconvert abandoned military areas, which were previously restricted (restricted areas) but currently passing transformation processes, we must consider the intervention both within and outside of a well-defined system. Therefore, we have to work inside and outside of the military system, as well as on the boundaries of hard-shaped structures. Camouflage is not only instructive for military practitioners’ intent on developing their skills, but also is interesting and entertaining means for much wider audience. Two case studies used as examples reveal the possibility that camouflage pattern concept may offer the effects that prove the chance of using camouflage as a scientific, designing and planning landscape tool. Results of the case studies indicate the importance and possibility of intervention integrated into the landscape by combining military means and elements of urban planning, and regulation specific to these types of functions.

Keywords: reconversion, camouflage, army development, landscape planning.

Introduction

The Army, as an instrument of power, is found in a continuous process of transformation that keeps, on one hand, its conservative character and, on the other, provides for another perspective.

Some determinant factors of army transformation are:
− emergence of new forms of security challenges;
− new military technologies;
− new tactics and strategies;
− need to respond to social constraints (democratic rights, the laws of war, etc.);
− attempts to gain the edge over the opponent/enemy/partner;
− combination of new structures, methods, techniques and technologies as a response that the military instrument gives to security challenges (Civil-military cooperation, CIMIC, PSYOPS, etc.).

The Army, as an instrument of power, is continuously dynamic. Its transformation process is accompanied by defining features of mobility and flexibility/adaptability. Now, even more than ever, it is essential to abandon the old security policies and reconsider the existing defense strategies.

Therefore, there is also a need to rethink the organization of spaces with special destination, both in terms of definition and classification of these categories into a special typology, as well as in terms of their use and operation within a specific landscape.

Nowadays we don’t talk about the army referring to the physical boundaries of the space, but rather to a defense concept that entails the integration and adaptability of spaces disposed for training and development of the domain in compliance with new requirement of society.

Purpose of the Boundary in Configuration of Defense Structures

In theory, the boundary is understood as a trend, and its representation, in the physical plan, is a form of aspiring.

“De-localization, therefore, mobility, transplants and coincidences- all these lead to an expansion, to a special and temporal diffusion and at the same time, to the growth in importance of the intermediate spaces, neighborhoods, edges, of the unstable structures” (Stan 2009).

At the same time, the boundary (Fig. 1) may result in segregation, understood as a difference carried to extremes, but in some cases it may be in a process of symbiosis within the meaning of different identities that merged over time. However, the optimal solution to maintain the balance between the two environments is the integration.
The military area is a restricted one, which hides visually or conceals an objective with a clear intention to protect in a physical sense, but also to protect the internal information. Therefore, it is vital to arrange the military areas in order to take them away from the eyes of civilians, create an area visually “unattractive”, an area without clear borders, faded, that wouldn’t call for further development. At the same time, it must shelter, embrace and hide a military secret. Therefore, a double membrane is created. One is related to the physical protection of the objective, along with the protection of information which is inward, and another to conceal, which is outward.

**Situation of Decommissioned Military Bases**

In the present context, the decommissioned military bases, corpora of buildings and spaces, found within uncertainty, require for application of reconversion solutions supported by a need to modify the function.

Some of these spaces, by their original configuration, can be converted into the dwelling spaces and others – into recreation or medical treatment spaces. Given their historical connotations, some of these spaces with special purpose can be reintegrated into the territory by transforming them to historical sites. In this respect, Michel Foucault co-relates the destination of military buildings with the idea of power, which anchors these sites also post factum in the social area, be it only from a historical perspective.

“Along with the high technology of telescopes, lenses and light beams, which coincided with the founding of the new physics and new cosmology, there were also small techniques of the multiple and crossed surveillance, of the eyes that must see without being seen; an obscure art of the light and the visible quietly prepared a new knowledge of the human being, through techniques of subjection and through some methods of their usage. These “observatories” follow an almost ideal model: the military camp. It is the city built in a hurry, artificial way, which can be built and reshaped almost at will; the headquarters of a power that must have even more intensity, but also discretion, more efficacy and preventive value as it’s exercised on armed people. In the perfect camp, the full power is practiced through the simple game of accurate surveillance; and each sight is a piece in the global mechanism of the power” (Foucault 2005).

From a historical perspective, but also from a functional one, spaces of military destination lead to the explicit purpose of gaining the power effect; the aspect of revealing the identity of these spaces in the natural environment and in the context of other buildings should be perceived alongside with the effect of surveillance of the surroundings. This destination, almost generally valid, induces the goal to obtain a report of power, of authority.

Over time the effective exercise of power and surveillance has imposed the camouflage as a military method of masking and reinforcing. Therefore, depending on the moment, the camouflage can be an expression of a state, adapted to the context: to highlight or to blur. In his piece of work, Neil Leach distinguishes between the two faces of masking, reporting the method to the concept, in a broad way: “Military camouflage is just a subset of the camouflage in a wider meaning. The taking of the military camouflage clothing by the fashion industry not only shows that camouflage is a way of dressing, but also that dressing, mainly, can be a kind of camouflage. In this regard, the sumptuous parade uniforms which reveal the soldiers at the military parades are as much of an example of camouflage as the uniforms worn in battles, which help them to hide on the battlefield” (Leach 2009).

Building on the multi-functionality of camouflage, conversion of former military bases comes as a priority in reconfiguring the spaces, by reference to functionality. For example, the sites which have, as a subject, the military art from various historical eras may have dual roles; looking at the past functionality – the defense one, and the present one – of highlighting the cultural heritage. These former military bases become re-integrated in the landscape, both aesthetically and informatively, by providing dates to those interested about their active period. If after conversion these bases take a character of utility such as habitation or entertainment places, etc., they get re-integrated into the system of active values.

In this respect, the 18 forts and as much of the batteries spotted around Bucharest is an eloquent example. Progress of science in the first half of the twentieth century, in such key areas as chemistry and aviation industry, radically influenced the military objectives. Modern war has changed completely the purpose of fortifications; they have become vulnerable just due to the progress of science. The First World War bombing destroyed, for example, the
famous fortifications in Liège, designed by General Henri Alexis Brialmont. In Romania, the military in charge at that time ordered to remove the artillery pieces existing in forts and transform them into mobile artillery, which allowed them to be protected from bombing. Decisions of this kind also had an important purpose in adopting an efficient military tactics, because when the German army approached the capital, Romanians abandoned the forts as they were deprived of the fighting techniques. The fortification fortresses by their geographical position had also the purpose to guard the area, in order to have an effective military action, as well as to camouflage making use, in this respect, of the landscape’s defensive potential. Thus enhancement of the natural potential in building these forts provided for both, the defense and efficient attack possibilities. In time, this dual functionality of the natural space lost its initial purpose becoming just a functional segment intended to some assemblies with changed destinations. In his work Michel Foucault states: To supervise and to punish: “While on the other hand, the disciplinary establishments are growing, their mechanisms have a certain tendency to “de-institutionalize”, to come out of the closed fortresses as they functioned before and to be able to run “free”; numerous and massive types of discipline decompose in supple procedures of control, capable of being transformed and adapted” (Foucault 2005).

Camouflage – Landscape Intervention Method with Multiple Valences

As a method of intervention in the landscape, the camouflage led to the art of image creation, with a mainly functional purpose rather than aesthetics. In the field of semiotics, the camouflage brings more meaning to the relationship between a human being and his environment, configuring a real symbiosis between the two parts of the site. Landscape protects it and highlights the power element, while a man can brutally or in a balanced way to interfere, to value it from a certain perspective. In fact, nowadays the man and landscape also need to cooperate. In this regard, Neil Leach argues that: “Camouflage strategies have always existed in one form or another in the human operations, but they became dominating in our contemporary culture, based on images. [...] The camouflage should be read not in negative terms as a loss or concealment of an original ideal state, but rather in positive terms, as a way of self-expression” (Leach 2009).

Taking the opinions of Neil Leach as a reference, there is obviously a need to preserve the old forts, as expressions of mentality and culture of the time. Protection of military architecture elements from degradation, as well as their conservation justifies their heritage value. On the other hand, considering its kinship to the archetype, the camouflage comes as an expression of imitating the nature, like animals’ ability to mingle or adapt to the environment seeking protection. In this regard, from anthropological point of view, Roger Caillois concludes: “Man did not invent better ways of camouflage, to hide himself, his machines and his installations, than those of snakes and branch insects, which are contrasting colors and foliage. Canvases painted with large spots of contrasting colors break a shape and make it disappear. Sometimes, the leafy branches are used as a coverage” (Caillois 1964).

This fusion with nature provides some time needed to retreat and organize the defense campaign or attack according to all rules of military tactics. Merging with the environment does not mean any loss of identity, but rather its assertion from the positions of power: “Therefore, the camouflage acts as an individual mechanism of relating with a given frame through a medium of representation-be it by becoming a part of that frame, or distinguishing itself from it” (Leach 2009).

Role of the Relief and Vegetation in Ensuring the Disguise

Merging into the landscape also configures another coordination of relationship between a man and his environment aimed at comfort and protection. The use of vegetation as a source of masking was tried as effective tool in various decisive military situations.

Hiding and retreat of the forces, use of opportunities offered by geography of the place including the relief and vegetation lead to conclusions that may renew the functionality of old forts. In order to achieve victory, the recovery of diurnal time, respectively the nocturnal one, was also observed in the entire orchestration of the forces. Daylight can create major vulnerabilities in defense and therefore, at night, it is dimmed by applying the valences of natural camouflage. Use of forts from the landscape perspective including the role of camouflage, represented a valuable practice in defense actions.

Even the underground design of some fortifications and their masking by exploiting the relief forms can be an effective solution to revitalize such areas. Mild or even brutal interventions of a man in the landscape should not be ignored, in order to ensure masking. For example, landforms built for military purposes – referring to polygons – had by definition also a protective role for defense or attack actions. We should not ignore in this aspect the texture
chosen for the camouflage clothing and equipment. That “mosaic” of colors is meant to imitate vegetation chromatics, in order to protect the army’s actions. The movement itself in the theatres of battle occurs in camouflage. The trees, grass, plants can be both elements supporting the army’s actions and setting the limit between the military and city areas.

Language of Colors

The chromatics can define a space’s valences referring to its usefulness. The aesthetic criterion is the first to induce a certain condition to the one who is looking at the landscape. Capitalizing the symbolic elements of chromatic, the army uses colors with a predefined message. These are expressed both symbolically and through contextualization, being able to create an emotional state. Thus fear, as well as trust, the state of action, as well as inactivity, can be induced by an eye contact with the intelligently made up chromatic palette. Complementary to the chromatic effect in perceiving the image is the psychological effect of the camouflage. The color can change the mood emotionally and mentally and lead to such mental conditions that more or less influence the decisions and actions. The effect generated by contextualization of the referential plan is also known. In the cases under consideration the question arises of the chromatic effect on the special purpose space reconversion, forts and dismantled military bases. In terms of aesthetics, the harmony of colors and polychrome can break the boundaries between civil society and military authority, while the monochrome and the chromatic tones could induce an atmosphere marked by austerity and rigor. However, the chromatic can generate dynamic or static optical illusions proven as a model factor of military offensive result with traditional means. Moreover, the chromatic tones of anthropogenic landscape – speaking about functioning military bases – can generate solutions for their reconversion, in case of their decommissioning over time. To this end, the natural and anthropogenic landscape chromatic tones can join on a common line, as a suggestion, generating the harmonious integration of decommissioned forts in the urban areas through their reconversion and functionality.

Decryption the Pattern Generated by the Chromatic Mosaic and its Importance in Providing Disguise

Military outfit is in full harmony with the environment, because soldiers’ movement in relation to the static appearance of the military and natural scenery needs some disguise, in order not to become an easily annihilated target. At the same time, battle outfits or festive ones not only provide comfort, but also ensure the attitude of stateliness imposing respect of the civil society on the military and thus establishing the society’s acceptance of the national, as well as universal system of values. Paradoxically, the military uniform does not annihilate the wearer’s personality, his social and professional identity, but even serves to personalize this very important social category, which by profession and mission represents the power tool of the state. The fact that the uniform is different, depending on its utility, creates a symbolic image in the event plan: of a battle or military parade. In both situations, the military uniform with its color and weapon, which it symbolizes, expresses the consistency of the system, its cohesion and, consequently, the effect of power. Improving the fighting techniques, starting from the remote identification of the troops’ location, the modern methods applied by the military search for new problems to be solved. One of these is the camouflage in case of infrared detection of the troops, fighting technique and disappearance of the precise localization.

The radiolocation, thermo vision, thermo location, television, lasers, visible ultraviolet or infrared photography, observation systems and modern equipment in the optic, thermal and radiolocation areas are research facilities which undertakes masking as a solution to protect people and machinery.

If initially it was thought that masking the military targets can be achieved through the use of the khaki color, it was proved that, in essence, this creates an agglomeration of monochromatic details without camouflage effect.

The chromatic solution came by combining four colors out of which the mosaic outfit would be composed (green, yellow, brown, black). This solution ensures identification of the outfit’s bearer with environmental elements.

Symbolism of the chromatic palette chosen for the mosaic requires for the green related to the chlorophyll of natural vegetation, for the dull yellow as related to the clay soil and dry vegetation. The brown color imitates wood and black - the soil and even natural or synthetic shadows. The camouflage mosaic creates soft contrasts between the environment and military outfit, being able to imitate the reflection and coverage masking. Therefore, it imitates the colors of the natural environment or the deformation of the contour of their target, misleading the enemy (Fig. 2).

“Any wavelength emitted by a masked object is reflected as information about the nature, position and size of the studied object” (Chete 1995). On camouflage outfit, the spots are deformed, symmetry is avoided, and color contrast is boosted. For its optical effect and camouflage results, the “mosaic” was accepted by the armies of all the
N.A.T.O. countries. The chromatic effects combining the chosen colors can be obtained also through combining three of the four proposed colors. The interesting fact is that even though they seem identical, the military outfits are customized within each N.A.T.O member country. Aimed at soldier protection, each national identity was built by harmonizing the design and chromatic tones with each country’s environment and, more importantly, with all the national colors.

Case studies – Possibilities of Implementation of the Concept of Masking

The concern for the issue of the military areas, whether still functioning or abandoned, comes together with the opportunity of developing some projects in which it will be specifically illustrated the way they can interfere in these areas. We realize that: “In Romania, the heritage represented by the former military bases listed in the civil register is often treated isolated from the society/community, and is regarded only as requiring a financial effort for recovery and not as an asset which would generate money later that can serve the community’s interests. This attitude explains their poor privatizations, the abandoned state (they are enclosed areas, which have or not a symbolic security, but with an indoor access and photographing ban)” (Bara et al. 2010).

Landscape Revitalization in the Shooting Polygon Mogosoaia

The first of this kind of studies, made in 2008, consisting in the licensing work, refers to the Mogosoaia shooting Polygon. The area is located in eastern Mogosoaia, in the northwest of Bucharest. The eastern border is represented by the ring road, while in the north, south and west the polygon is bound by ground roads. The shooting polygon with infantry weapons “Mogosoaia” is a part of the permanent shooting polygons. The polygon was set in 1976 inside the former fortifications of the Battery 1–2 Mogosoaia and occupies an area of 6.0068 ha of land (including the mandatory safety space) delimited by 24 perimeter terminals. The polygon is delimited by the railway and access roads on its three sides and by the private properties of the citizens on a single side, while it is fenced with a barber wire fence, ditches (trenches), barriers and gates.

While analyzing the situation of the ground and the site’s geography, we have noticed some disruptions in the space organization, as well as from the management of internal resources point of view. Allocation of funds for the maintenance and operation of the polygon, as well as strengthening the safety measures of the shooting grounds by restoring the protective prefabricated fence that is 70% destroyed by the residents are obvious needs for this space. Also restoration of the external enclosures in order to stop uncontrolled forestry cutting and garbage dumping from the neighborhood, as well as executing other works required for replacement or modernization of the installations (facilities) especially, are a priority for solving the problems of this area.

The proposal was made to revitalize the polygon plans, eliminate current negative aspects and convert this space into a functional system integrated into the territory. Keeping the military character of the site by adding new modernized spaces, which can be registered into the civil legal system, will reveal the distinctive qualities of the analyzed area, outlining a military point of representation in Bucharest and green core of high importance in Mogosoaia. Reconfiguration of the pedestrian ways, as well as revitalizing the forestry associated with the polygon will lead to improvement of the landscape’s quality. An advantage of the site is its extensive vegetation, which will be highlighted even at night through enlightenment in certain points.

The existence of the Battery 1–2 that is a part of the fortification belt of Bucharest represents a real development potential in terms of tourism and also from the military, cultural and civil points of view. Almost unique in Europe, the rehabilitation of this fortification system could bring many financial benefits and also in terms of the image capital.

The major objectives of the study were: 1) Integration of the shooting polygon Mogosoaia into a route-type structure of the forts of Bucharest; 2) Increasing the importance of the green spaces in the old and current special-purpose areas; and 3) Functional zoning, flows and sustainable and efficient use of space.

This site is currently used as a place for the military training. The proposal for landscape revitalization of the Mogosoaia shooting polygon (Fig. 3) was focused on a double effect of the arrangement, with the purpose of a sound management of the military space, but also of a value enhancement of the presence of the Mogosoaia Battery 1–2 on the site. In terms of spatial distribution according to
functions, we have proposed new areas of training intended for military use, and on the other hand, construction of a military museum within the Battery 1–2 and opening it for tourists.

The detail related to the proposal of functional reorganization of the Mogosoaia Battery 1–2 (Fig. 4) supports the idea that the Bucharest’s fortification belt can be transformed into a touristic route aimed to enhance the value of these historical monuments. Construction of a military museum within this battery could offer a new function to a disused area. The need for designs that could save the forts from the degradation they currently suffer should be a major concern for the authorities, given the fact that they represent the monuments of military architecture that should be registered as part of the national heritage. Also, the proposal to revitalize this green structure could complete the spatial reintegration and recovery of a target space that is currently dismantled.

The existing vegetation occupying about 80% of the polygon has, first of all, the role of noise protection. The species used to revitalize the polygon include variegated foliage, following the concept of masking. The existence of sick trees, require their replacement with new vegetation to help the development of camouflage training.

By proposed objectives for the revitalization of the shooting polygon, this space is valued both in terms of qualities to conduct military activities, as well as in terms of landscape. Valuable existing vegetation is complemented by new species of trees and shrubs that enhance the aesthetic and environmental aspects of the site, and help to conduct military training in good conditions. Thus, by introducing perennial species the polygon’s functioning will be ensured in any season.

The proposed intervention is feasible and necessary given that the shooting polygon Mogosoaia must be modernized and transformed into a representative space.

Fig. 3. Licensing Work – Project of revitalization the shooting polygon Mogosoaia – Plan of rearrangement

Fig. 4. Licensing Work – Project of revitalization the shooting polygon Mogosoaia – The existing situation and element detail
**Landscape Revitalization of the Old Defense Structures and Special Purpose Areas in Giurgiu**

The second case study is represented by the diploma entitled: *Landscape Revitalization of the Old Defense Structures and Special Purpose Areas in Giurgiu*, defended in 2010. The research questions were: how can we integrate these areas into the city? Which of them are located at the periphery of the city or within it, but with a very clear limit? How do these areas look like in terms of landscape, and how can they be converted?

To know the historical development of a landscape, as it is perceived in terms of its forming dimensions, is one of the most important elements that adds to its complexity and its perceived as a cultural value. This knowledge can be obtained by using some specific tools, such as the disciplines that deals with the ethnographic, symbolic or archeological spheres. The methodology used for the research of these areas is related both, to documentation and field study.

While performing the macro territorial analysis, we have found out that the phenomenon of placing fortresses along the Danube is common, i.e. there was an overlap over the centuries of some fortresses which were serving as defense points. The main features of the fortification were the landscape, camouflage and, of course, boundaries. Over time these areas have undergone major changes, and today they represent archaeological vestiges with a potential which is mostly untapped.

Also at macro territorial level, we have designed possibilities to improve the image of space typologies of the special purpose areas with the help of vegetation. Analyzing vegetation characteristic for the area we have found that it is degraded and often spontaneous. The main feature of the special purpose areas consists of the fencing and the boundaries (Fig. 5) this fencing creates in the urban context. The visual impermeability creates a vacuum between the city and its military areas turned into enclaves.

Also, the study shows these areas’ actual condition and the places where it’s necessary to correct and solve the specific problems (Fig. 6).

The detail developed in the actual diploma represents the interference between two military systems: one with historical and cultural importance and the other one of the existing utility. Joining an old defense structure, Giurgiu Fortress, and a special purpose space represented by the Border Police and Gendarmerie, supports the idea that such areas can be simultaneously revitalized, but in different ways, specific to the existing legal regulation (Fig. 7). Increasing the value of the site requires cooperation between authorities and applying specific regulations in compliance with current and future needs.
Conclusions

Whether we are talking about special purpose areas still functional nowadays, or about the dismantled ones, one thing is certain: there are practical ways to interfere in these areas; and implementation of these projects is related to the awareness that the value of these objectives is bigger than a mere location.
Preservation and conversion of the areas that are part of the cultural heritage appear as a necessity closely linked to the national identity, being able to provide the lost uniqueness to generalization of the globalization phenomenon. The overlapping criteria of classification of the degree of historical, anthropological or ethnographic value granted to a landscape can be the obvious solution. When these values are intended to generate the national identity, they must be given a priority. Therefore the landscape containing obvious historical value and offering important lessons should be treated in a completely separate way, so that all the other forming elements could be subordinated and help to express the dominant character.

The case studies presented by the author have highlighted the ways through which the change of the natural element was made, to accommodate to the natural constraints or opportunities offered by different spaces. An important criterion in the conversion of these structures is represented by preservation of material evidences as conclusive as possible to the development of the military architectural heritage over time. Whether it is about elements still used or in direct connection with the local society, they have the advantage of preserving the relationships at the level of local history, of traditions or collective memory.

In the light of these general criteria, we can judge the importance and specificity of a landscape, in terms of its cultural value, important for its classification. The character of the landscape is related in this context to the uniqueness and originality of the natural element and the human intervention taken together and treated from the point of view of impression left to the viewer.

This very large classification, though, leaves a room for interpretation, and we can say that within the European context of social and historical development with wide implications, the majority of the landscape of special purpose is represented by preservation of material evidences as conclusive as possible to the development of the military architectural heritage over time. Whether it is about elements still used or in direct connection with the local society, they have the advantage of preserving the relationships at the level of local history, of traditions or collective memory.

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The improvement of environment management and spatial planning of these special destination areas will lead to a coherent urban landscape correlated with the present and future material, social and geospatial possibilities.

References


INTERVENCIOŞI ÎN KRAŞTOVAIZDĮ BŪDŲ NAUDOJIMAS SENOMS NEBENAUJOJAMOMS GYNYBOS STRUKTŪROMS PERTVARKYTI

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Santrauka

Dėl pasaulioje vykstančių pokyčių rūpinimasis valstybės apsauga yra sudėtingas ir reikalauja naujų sprendimų ieškojimo, susijusių su saugumo iššūkiais, karinėmis technologijomis, strategijomis ir taktikomis, sujungiant struktūras, metodus, technikas ir technologijas, siejamas su saugumo problemomis, dėl būtinybės reaguoti į socialinius suvaržymus (demokratinius teisės, karo teisės), bandant pranokti priešininkus / partnerius ir t. t. Taigi, siekiant konvertuoti apleistas karines teritorijas, į kurias anksčiau patekti buvo draudžiama (draudžiamos teritorijos), vykstant kai-tos procesams, reikia apsvarstyti intervenciją tiek gerai apibrėžtos sistemos viduje, tiek už jos ribų. Todėl karinės sistemos viduje ir už jos ribų reikia dėvėti griežtose struktūrose. Maskuotų naudojama ne tik karinių specialistų siekiai laiminti igūdžius, bet ir kaip idomi priemonė, skirta kur kas platesnei auditorijai. Dviejių atvejų tyriniai kaip pavyzdžiai atskleidžia galimybę, kad maskuotės modelio koncepcija gali išgauti poveikį, kuris įrodymų, jog maskuotę galima naudoti kaip mokslinį įrankį kraštovaizdžiui projektuoti ir planuoti. Šio atvejo tyrimų rezultatai rodo integruotos į kraštovaizdį intervencijos svarbą ir galimybę derinti karines priemones, miestų planavimo elementus ir specifini reglaviavimą šio tipo funkcionuoj.