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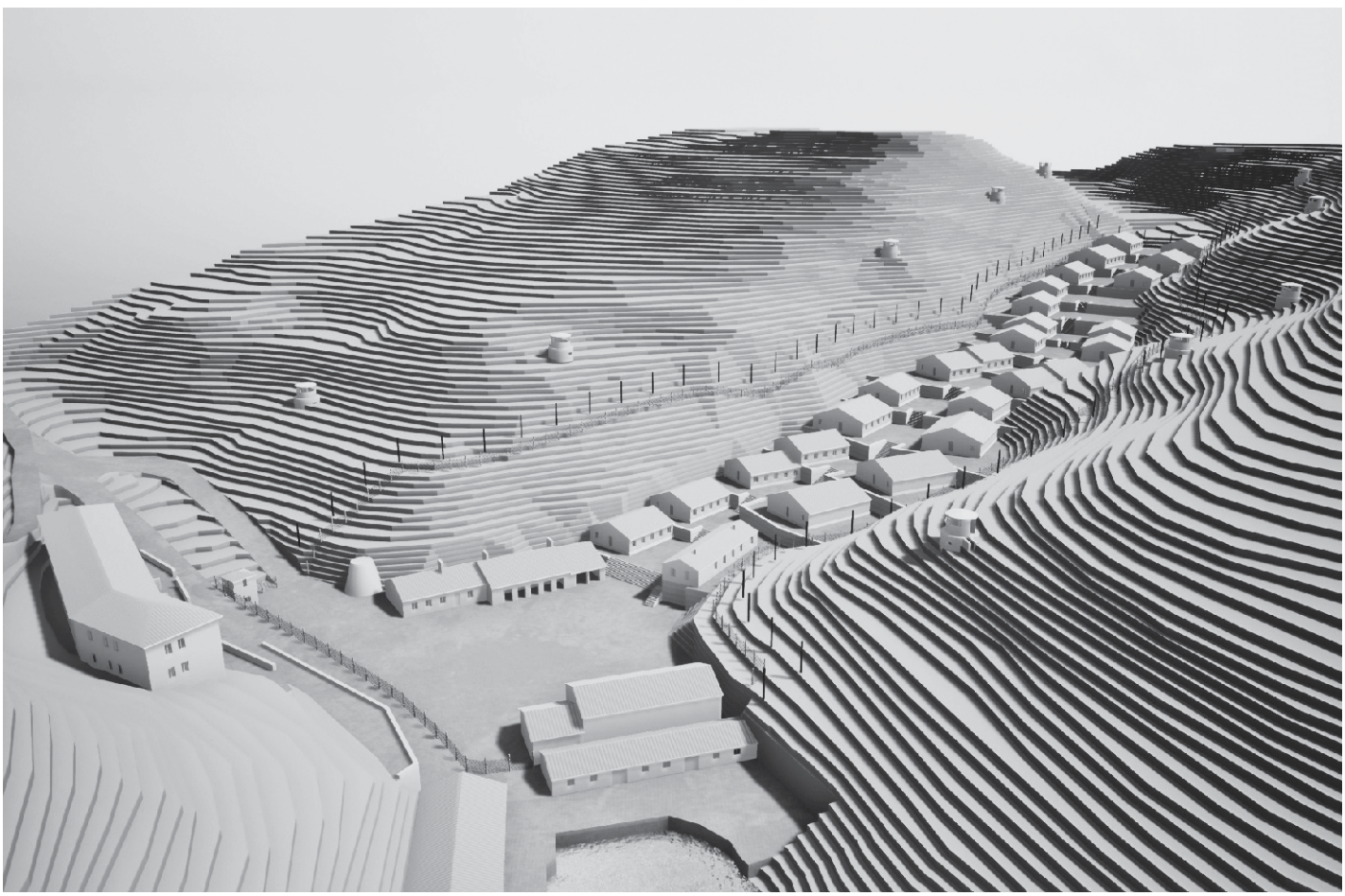
Fig. 1 Reconstruction of the reliefs and appearance of the "Velika žica" prison camp



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Anthropogenic Elements of the Cultural Landscape of the Island Goli Otok in Croatia

ANTHROPOGENIC ELEMENTS
CULTURAL LANDSCAPE
INFRASTRUCTURE SYSTEM
ISLAND GOLI OTOK, CROATIA
PRISON CAMP

The island Goli otok (north Adriatic, Croatia) cultural landscape is a complex system of interactions between people and nature, which has arisen through the anthropogenic use of this unique natural space with the aim of implementing ideas of the ideological re-education of political prisoners between 1949 and 1956, and the punishment of criminals and some political prisoners between 1956 and 1988. The most significant elements of the cultural landscape of the island are comprised of the anthropogenic structures of the political prison camp which deliberately used the natural features of the landscape in such a way as to enable methods of coercion of prisoners, which finally resulted in the unique identity of the space as a unit.

INTRODUCTION

This article is a synthesis of research on the genesis and characteristics of the anthropogenic structures of the Croatian island Goli otok in north Adriatic based on the methodological procedure of collecting, classifying and systematizing available source data – archives from the Croatian State Archives[1], aerial photogrammetric material[2], written and pictorial material[3], testimonies of former political prisoners[4] and geodetic and architectural measurements of preserved historic buildings[5], which has been carried out in order to define the basic criteria for evaluation and categorization, and the establishment of theoretical models of protection, use and/or presentation of the cultural landscape of Goli otok. The sudden construction of the anthropogenic structures of Goli otok was preceded by a turning point in the history of the former Yugoslavia (1945-1991) – the severance of ideological, political, economic, military and other relations with the USSR (*Union of Soviet Socialist Republics*) and the expulsion of Yugoslavia from the "Informbiro".[6] That same organisation on 28 June 1948 issued a Cominform Resolution with a series of charges accusing Yugoslavia of various deviations from Communist theory and practice, and finally calling on the members of the Communist Party of Yugoslavia to expel Tito. As it did not succeed in this, the USSR turned to ideological, political and economic pressure on Yugoslavia along with the constant threat of military invasion.

In that atmosphere Yugoslavia resisted Soviet pressure in a variety of ways and focused in particular on the so-called "IBs" ("Informbiros"), that is, actual or alleged supporters of the Cominform Resolution in Yugoslavia, mainly members of the Communist Party of Yugoslavia. In the period between 1948 and 1956, arrests of "IBs" reached the scale of a purge with 15,737 people arrested and imprisoned (Previšić, 2013: 173-193). The IBs were a heterogeneous group of supporters of the Cominform Resolution, sympathisers of Stalin, critics of the system and economic measures, and so on. When the Yugoslav Communist Party leadership realised that the conflict was going to intensify and would not end soon, a decision was made to create a place where the arrested IBs would be interned, and so in July 1949 a prison camp was opened on Goli otok, a small island in the north Adriatic which was part of the prison camp and prison system for the internment of IBs from 1949 to 1956. Three quarters of the arrested and sentenced IBs passed through this prison camp, and for this reason it deserves particular attention in research. Towards the end of 1956, the camp was restructured into a prison for criminals and certain political prisoners and was in service until 1988.

After 1992, when the guards left the island, there was a period of devastation of the landscape and anthropogenic structures, so today the island has abandoned (and partly damaged) buildings of political camps and prisons, neglected forested areas, quarries and components of the water and electricity supply infrastructure that are no longer in operation (water tanks, electric power substations, etc.). However, there are some active tourist facilities (a restaurant, an improvised cinema, a souvenir shop and a motor train for tourist tours of the island). The untouched natural landscape is spontaneously used for grazing sheep by the inhabitants of the nearby island of Lopar.

Considering that there are still functional docks in Tatinja bay and Melna bay, as well as a preserved camp road infrastructure, in the warmer part of the year, from mid-May to mid-October, a relatively large number of excursion tourists constantly arrives on the island, by tourist boat or by their own mode of transport for a tour of the island and the abandoned camp and prison structures. Visitors most often come from the nearby island Rab, but also from Krk and places on the mainland that have already developed accommodation and other tourist facilities.

In the former Yugoslavia the existence of a political prison camp (and the harsh conditions in it) were for a long time an open

secret, or taboo subject which gradually began to be considered publicly after Tito's death (1980), at first in cultural productions and later in memoirs and films of various credibility and documentary value, and were only methodologically researched in 2014 in the field of the humanities.[7] However, despite the island's landscape, as a creation of nature and of man, containing parts of an architectural complex of a political camp (and prison) strongly connected to a traumatic historical event of human suffering, the subject remained unexplored in the field of technical science – architecture and urbanism.

In such circumstances, without a complete inventory and evaluation of the architectural, urban and historical memorial elements of the landscape, a Spatial Plan of the Municipality of Lopar which allows for a new tourist zone with hotels, resorts and camps, accompanying harbours, beaches and recreation areas, was drafted in 2011. The tourist zone is planned on an area of 46 hectares, which largely overlaps with the area of the historic architectural complex (*** 2011).

THE CULTURAL LANDSCAPE

Humans have built the anthropogenic structures of political prison camps and prisons and created new systems for utilizing space on the natural foundation of the barren island Goli otok. In that way, through the dynamic interaction of nature and humans a unique, multi-layered cultural landscape was created in the wider environs, with a special diversity which has changed over time and adapted to human needs in keeping with the social and political circumstances. In this multi-layered landscape we can identify and classify the following interrelated and overlapping layers:

1. the political prison camp, connected to the historical event of the political conflict between Yugoslavia and Cominform and the use of violent methods of ideological re-education of political prisoners;

2. the prisons, connected to the historical event of the introduction of more modern and advanced methods for the resocialisation of criminal prisoners;

3. industry, connected to the complex of factories in the political prison camp and the prison (the political prison camp and the prison developed manufacturing facilities for the processing of stone, wood and metals and for the production of terracotta tiles, as well as exploiting the stone and wood on Goli otok and in the Velebit Mountains);

4. fortifications, connected to the political event of Cold War politics between the Eastern and Western Bloc and the phenomenon of political prison camps;

5. the potential archaeological layer, related to potential archaeological localities of the political prison camp (potential archaeological localities on Goli otok are archaeologically unexplored areas on the site of the first "Stara žica" *("Old wire")* prison camp, the fourth "Petrova rupa" *("Peter's hole")* prison camp and the prison graveyard).

6. the island and coastal landscape, related to the natural characteristics of Goli otok as one of the most northerly and windiest chalk islands in the Mediterranean.

The cultural landscape is researched through an analysis and evaluation of individual components of the landscape (natural, anthropological, environmental, sensory and others), but in keeping with contemporary theory, the cultural landscape should be studied as a complex and holistic spatial system in which individual components of the landscape are connected through powerful mutual influences (Dumbović Bilušić, 2012). In the example of Goli otok as an integral and multi-layered cultural landscape, the interrelations and mutual influences between the individual components can be clearly enumerated. The interactions of people and the natural environment arose with the sudden and intense biological presence of humans caused by a historical event in 1949, when on an island with significant natural characteristics first of all a political prison camp was built, and then, following the changed political circumstances in 1956, also a prison. The anthropogenic built structures influenced the environmental character (physiognomical and morphological) of the island, and with the passage of time became related to the sensory and other components of the locality which eventually contributed to the perception of Goli otok as a unique cultural landscape and a significant place of remembrance woven into the identity of the collective memory.

THE FACTORS OF THE IDENTITY OF THE GOLI OTOK CULTURAL LANDSCAPE

The natural features of the island, comprised of its relief, climate, geology, pedology, hydrology, vegetation and habitats, are an important factor in the integrated system of the identity of the cultural landscape of the island.

NATURAL FEATURES OF THE ISLAND

– Relief – The island Goli otok (227 m above sea level), with an area of 4.54 km^2 and a triangle-shaped coastline with a total length of 14.3 km (Duplančić Leder et al., 2004: 13) has a unique chalk relief of soluble rocks with in-

1 The Croatian State Archives keeps the documents of the fund 1560 Department / Service for Execution of Criminal and Misdemeanor Sanctions of the Republic Secretariat for Justice and Administration of the Socialist Republic of Croatia with the entire material of Rab – Goli otok Prison, consisting of, among other things, archival technical documentation (maps, plans, projects and drawings for the construction and reconstruction of prison buildings mostly dated from the late 1960s to the mid-1980s).

2 The aerial photogrammetric material of Goli otok, made until 1968, represents the basis for the analysis of individual buildings and areas of the original political camp (first, second and third camps "Stara žica", "Velika žica" and "Ženski logor", afforested areas, etc.).

3 Written and pictorial material contains descriptions, sketches and photographs of the political camp from various sources and private collections (books, letters, drawings, models, etc.).

4 The testimonies of former political prisoners Vladimir Bobinac, Vinko Bogdešic, Radovan Hrast, Alfred Pal, Ivan Ružić, Ante Zemljar and prisoner Beatrix Fixmann were collected using the *oral history* method.

5 Geodetic and architectural measurements of preserved buildings were undertaken by Vladi Bralic, Borko Zugan, Emil Jurcan, Arsen Čupev and Marko Nekic-Kamnikar on several occasions during 2009 on the area of the political camps "Stara žica", "Velika žica" and "Ženski kamp".

6 The "Informbiro" was the head organization of the communist parties of the "socialist camp" alongside two Western European ones (France and Italy), founded by the USSR in 1947 in order to consolidate countries under its influence (Eastern Europe / socialist camp) as post-war Europe was slowly gripped by the Cold War. The seat of this coordinating body was in Belgrade.

7 Although the subject of Goli otok has been dealt with in the field of the humanities before (in various general historical reviews and, for example, Ivo Banac's book *With Stalin against Tito: Informbureau splits,* from 1990), a detailed historical synthesis of the political camp on Goli otok was made in the doctoral dissertation of Martin Previšić (2014).

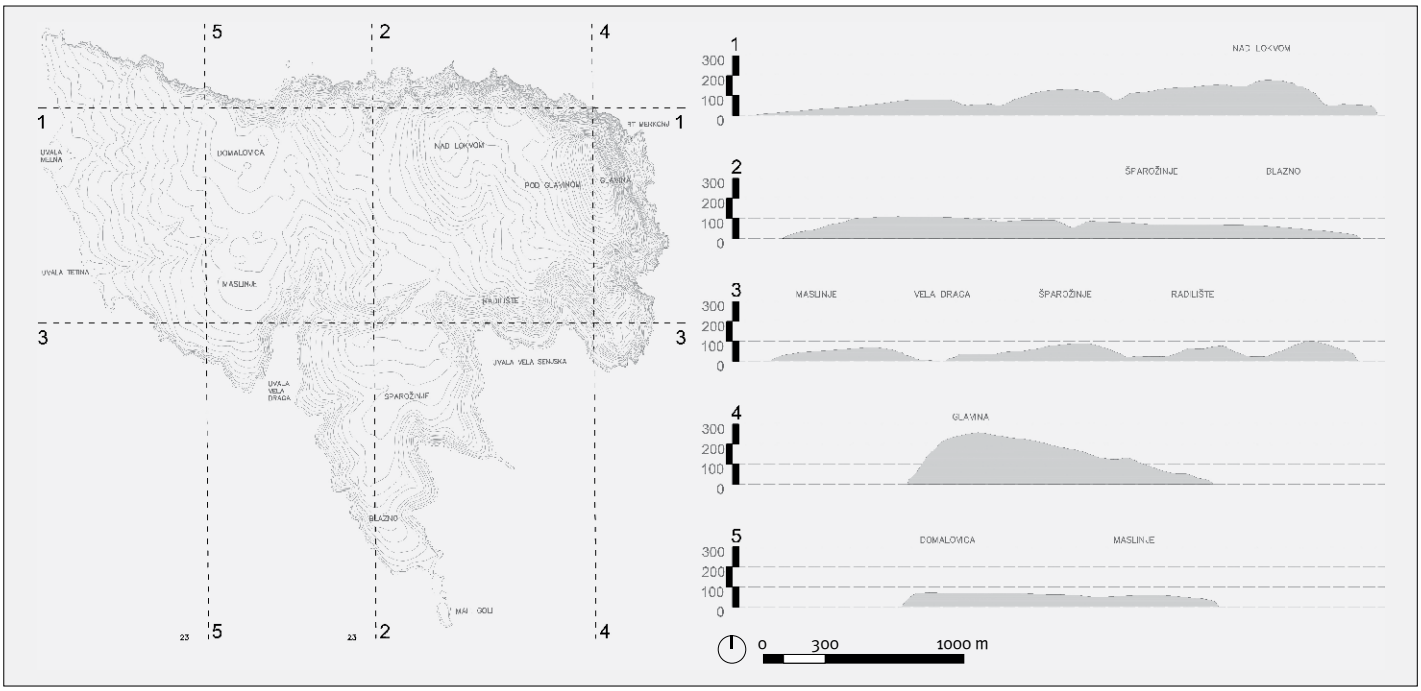


FIG. 2 GOLI OTOK, RELIEF

dented forms. The southern and south western coastline is gently shelving, highly indented and accessible from the sea, unlike the completely inaccessible and barren northern and eastern coastlines which are made up of a series of very steep cliff-faces around 4 km long and up to 220 m high. The sea directly in contact with the shoreline is moderately shallow and does not exceed a depth of 30 m, but along the eastern coastline there are very steep ravine-filled seabeds with a maximum depth of 102 m. The great majority of the island is dominated by rugged karst with typical karst plateaus (Domalovica), bays (Melna, Tatinja, Vela draga, Mala draga, Vela Senjska and Mala Senjska) and limestone pavements and sinkholes (Nad lokvom, Blazno). On the steep island slopes, the beds of ephemeral streams can be found, cut into the limestone mass through long-term erosion by intermittent copious flows of surface water (precipitation), as well as chemical erosion (above Tatinja, Vela draga, Mala Senjska and Vela Senjska coves) and rock creep (above Vela Senjska cove and the northern and eastern coasts) formed by the detachment and rolling of sections of rock faces (Fig. 2).

– Climate – The climate of the island is classified according to Köppen's scale as a moderately warm rainy Cfs's'a climate with hot summers without exceptionally dry periods. There is least rainfall in summer and most in winter (Seletković et al., 2011: 142-161). However, the climate of Goli otok has certain local peculiarities arising from the exposure of the stone mass of the island to heating during the summer and powerful gusts from the *bora* wind during the winter. In the summer months it is warm from the morning hours due to the almost direct exposure of the barren island to the sun's rays. On average it is warm throughout the whole summer, but in the middle of July, and in the first half of August it is very hot in the afternoons, so that during that part of the year the temperature frequently rises above 34 °C. In the winter months there are frequent and unexpected periods of storm-force cold *bora* winds which reach up to 150 km/h, when it is very cold on the island with temperatures falling to -8 °C. During harsher winters the northern and eastern coastlines of the island (as well as of nearby Prvić), unlike the other Adriatic islands, freeze, with layers of ice up to 1 m high.

– Geology – The island is a component of the Adriatic-Dinaric carbonate layers, probably created through tectonic folding following the sinking of the Dinaric lithospheric plate (the Velebit part) under the Adriatic lithospheric plate (the island part). Earlier geological explorations of Goli otok have confirmed that the island is mainly built from ru-

8 The classification number of the Ecological Network of the Republic of Croatia is HR3000022 (the sea surrounding the islands Sveti Grgur and Goli otok), while the protected habitats are the reefs, a rocky seabed from the supralittoral to the circalittoral zone, association with the species *Fucus virsoides* (a species of brown algae endemic to the Adriatic Sea).

9 Wood for the production facilities of Goli otok was obtained in the nearby Velebit Mountains.

dite limestone (Korolija, Borović, 1966), but new explorations on site (Krasnić, 2011) prove that there are various carbonite cliffs and breccia on the island as well as a variety of geological points of interest which are of significance for the composition and shape of the island and the source and nature of the processes which shaped the contemporary geological state of the island.

– Pedology – Detailed pedological information for the island has still not been obtained, but according to the Pedological Map of the Republic of Croatia (M 1:300 000) the island is mapped as Undeveloped ground (First class), type Karst terrain (Lithosol) with a percentage of chernozem, dolomitic limestone, rendzina and brown earth on limestone and *terra rossa*. The map also contains information on the suitability of the soil for agricultural cultivation, and on the basis of this data the greater part of the island, as a result of its steep and rocky nature, is classified as permanently unsuitable for cultivation, with only a small part, where changes to the karst terrain were made by humans importing fertile soil, classified as forest land.

– Hydrology – The limestone geological structure influences the hydrological characteristics of the island so that the island has no water at all, there are no permanent surface watercourses despite the moderately high level of precipitation (water from precipitation forms torrents or filters through the limestone bedrock towards the sea. The exception is an area of brackish lagoons exposed to strong salt-laden winds on the Domalovica plateau at an altitude of 140 m above sea level).

– Vegetation and habitats – The basic characteristic of the vegetation of Goli otok, which, after Prvić, is one of the saltiest islands in the Adriatic and the Mediterranean Sea, significantly describes the toponym of an island of Croatian origin in the shape of a descriptive (qualitative) adjective which expresses the natural characteristic of an island recognised in the wider area for its barren karst and scant Aeolian vegetation, since the greater part of the island is formed by bare hillsides with scant karst terrain and dry meadows. Contrary to first impressions of the paucity of the vegetation, scientific exploration to date bears witness to the fact that the flora of the island is moderately rich and diverse and comprises a total of 308 wild species and a number of endemic island species, while the island fauna is equally interesting (Lovrić et al., 1998: 109-122). The waters surrounding Goli otok (and Sveti Grgur) are part of the protected Ecological Network of the Republic of Croatia[8] and here highly diverse and well-preserved seabed communities and schools of fish have been documented (Zavodnik et al., 2005: 33-38).

It is necessary to emphasize the importance of the natural features of the island for a better understanding of the spatial and administrative organization of the political camp. For example, it is interesting to note that the security features of the strictly guarded political camp on isolated Goli otok were further enhanced by its particular relief, a prominent massif and inaccessible rocky hill that provide natural protection for much of the island to the north and east. The characteristics of the karst and sea landscape of the island with their unique type of Mediterranean relief (karst, desolate geological rock formations, complete lack of water, sparse Aeolian vegetation) and unique climate (exposure of the bare rocky mass of the island to insolation in summer and the *bora* wind in winter) which provided the conditions for various methods of ideological re-education, compelling prisoners to undertake hard physical labour on bare rock with cruel practices such as thirst torture, enduring harsh summer and winter climatic conditions.

Also, from the economic aspect, the natural features of the island met the conditions for the logical construction of the camp, and later the establishment of independent production facilities that would facilitate its sustainable development. There was an abundance of natural stone on the island, so it was possible to plan quarries for building materials for the construction of the camp, and then to organize production plants alongside it for processing stone and wood.[9]

Important factors in the integrated system of the identity of the cultural landscape are the environmental factors (measures, proportions, dominant aspects of the landscape, views etc.), sensory factors (perceptions of the landscape and of historical events, artistic expression), formal factors, legal and administrative factors, and other factors arising under the influence of anthropogenic (cultural) factors.

Anthropogenic factors and elements of the landscape

– **Political camps and prisons** – The anthropogenic remains of the political camp (1949-1956) are the most significant characteristics of the spatial identity of the cultural landscape of Goli otok. Suddenly and out of the blue, in 1949 anthropogenic structures were built for precisely determined complex social relations within the prison camp community and within just seven years the untouched natural landscape of the island was trans-

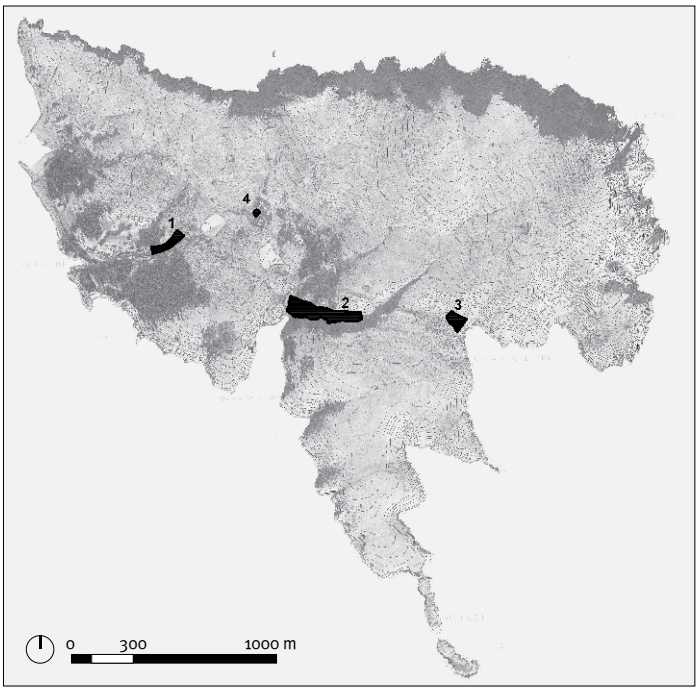


FIG. 3 TOPOLOGICAL POSITION OF THE PRISON CAMPS ON AN ORTHOMAP OF GOLI OTOK: 1 - THE FIRST CAMP, "STARA ŽICA"; 2 - THE SECOND CAMP, "VELIKA ŽICA"; 3 - THE THIRD CAMP, "ŽENSKI LOGOR"; 4 – THE FOURTH CAMP, "PETROVA RUPA" (FIRST SITE)

formed into a strictly purpose-built prison camp hidden from public view.

During the construction of the prison camp, the aim, in a planning sense, was the organisation of an almost ideal military camp, a quickly constructed artificial town which could be continually, flexibly adapted and reshaped to meet real needs, but also successfully monitored with the aim of implementing the *ideological re-education of the prisoners*. Using urban planning principles, which had long been in use in European urban planning to build working class neighbourhoods or institutional military, prison, educational or hospital complexes (Foucault, 1994: 177), four spatially separate prison camps were built on the island together with urban planning, institutional and administrative zoning, in other words clear spatial and territorial segregation of the inmates and interrogators.

The units for the accommodation of the prisoners were always grouped closely together and spatially and physically completely separated by barbed wire or high walls, while the units and buildings for the work and accommodation of the prison camp administration were as a rule sited in better positions with aesthetically arranged, sometimes even spacious surroundings and views over the land and sea, probably for sanitary and hygienic reasons as well as security and power, but also to enable a distanced view of the inmates so as to be able to establish and monitor within their fenced-off space a system of *apparent prisoner self-management*. In that sense the spatial arrangement of the prison camp was the functional, designed and executed expression of the ideology that gave rise to it.

From the spatial aspect the unique topography of each individual prison camp is interesting, bearing in mind that the usual arrangement of a military camp with a layout set in advance had to be modified in accordance with the real geomorphological environment of this karst island. The first prison camp, "Stara žica" *("Old wire"),* the second, "Velika žica" *("Big wire"),* and the third, "Ženski logor" (the *"Women's Camp*"), were sited above the Tatinja, Vela draga and Vela Senjska coves, amidst the bare stone morphology of the island and in particular in rocky valleys in between the island's ridges formed by the erosion of the karst landscape by ephemeral streams in a long-term geomorphological process of influence of precipitation on the rocky mass of the island.

It is well known that valleys, elongated depression in the Earth's crust, have always been, and still are today, a powerful geographical framework of the beginning and the development of the life of numerous rural and urban agglomerations. On Goli otok the sunken riverbed which forms a valley in the direction of the runoff of the rainfall is almost always completely dry, but unlike the rocky ridges has a covering of sparse vegetation. The riverbed is well defined in its upper and middle reaches, while towards the sea it loses its definition and broadens out into a cove. We can imagine that the topological position of the prison camp in the karst valley was selected for a number of well thought through reasons. From the aspect of camp security, the valley could easily be encircled by barbed wire and monitored by guards from elevated positions.

Moreover, although on Goli otok they are sited on significant slopes, they are still significantly more suitable for the erection of prison camp buildings than the surrounding rocky ridges, especially as they end in coves which are the most suitable spaces for access from the sea by boats and are connected with the inhabited parts of the mainland and the neighbouring islands. Conversely, the fourth of Goli otok's prison camps, "Petrova rupa" *("Peter's hole"),* was sited in the island's interior. However, that completely isolated prison camp shows even greater topological originality of its kind due to the fact that it

10 On Goli otok, prisoners used, in addition to standard and colloquial language, separate Goli otok jargon to ease communication. In the text that follows numerous lexemes of Goli otok jargon will be used which will be enclosed in inverted commas.

was hidden within a large abandoned quarry, conical in shape, which was created by human influence on the rocky mass of the island in the period between the First and Second World Wars when quarrying took place on the island in search of deposits of bauxite.

Apart from the unique topological site and the spatial arrangement of the prison camp (Fig. 3), the well-preserved camp buildings, mainly constructed from authentic Goli otok stone from the camp's quarries, a dense, sturdy and almost crystalline limestone in which individual grains of calcite can be seen by the naked eye, also possess a certain uniqueness and rarity of their kind.

Within the space for the accommodation of prisoners which was encircled by barbed wire, the first, the second and the third camps which the inmates called "Stara žica" (or "Mala žica"), "Velika žica" (or "Žica") and "Ženski logor" (or "Radilište R-5", *"Work area* R-5")[10], were sited in natural depressions pointing towards the shoreline occupying areas of 5,367 m², 21,600 m² and 4,900 m². The buildings for the accommodation of inmates, which held some 115 to 200 prisoners in very cramped conditions, were always sited on terraced, artificially constructed flat areas which followed the natural slopes of the valleys. The fourth camp, sited inside a quarried depression in the island's interior, which was called "Petrova rupa" by the inmates (or "Radilište 101" or "Manastir" */"the Monastery"/)* occupied a significantly smaller area of 700 m². The inmates were incarcerated here in a building sited at the bottom of the depression.

Inside what it is surmised to have been the fenced-off area of the first prison camp, "Stara žica" (1949-1950), there no longer exist any traces of prison camp buildings, but according to historical sources in the beginning that prison camp comprised 10 wooden barracks for the accommodation of inmates (as well as a kitchen and latrine block). With the arrival of new inmates the capacity was increased until there were finally 15 barracks erected (as well as a hospital building, a clinic and a laundry), but all of these buildings were dismantled in 1950 after the prisoners were moved to the second camp, "Velika žica". However, outside the fenced-off area, towards the sea and Tatinja cove as well as towards the island interior, there remain *in situ* preserved original prison camp structures which also belonged to this functional unit: the brick camp administration buildings (the buildings "Kamena", "Hotel", "Kuglana" */"Bowling Alley"/* and "Ljetni restoran" */"Summer Restaurant"/),* the first jetty, a quarry and manufacturing facilities, the first roads, paths and supporting walls, a sizeable cistern for the collection of rainwater and the first forested areas (Figs. 1, 4).

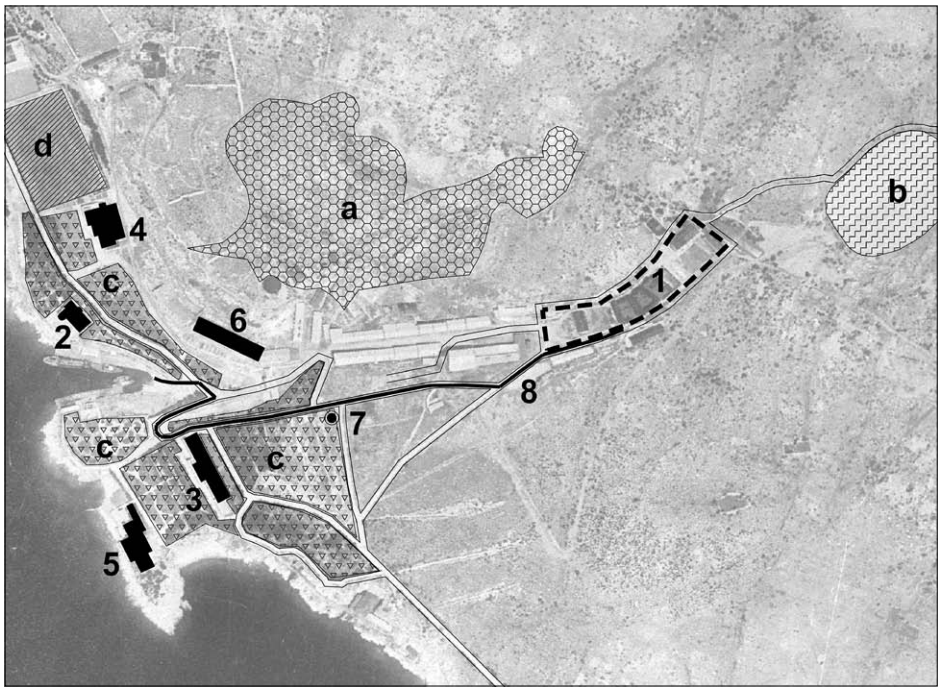


Fig. 4 Aerial photo of Tatinja Cove from 1968 marked with the plan of the contours of the fenced-off area of the first prison camp, "Stara Žica", and the preserved prison camp structures outside the fenced-off area: 1 - the fenced-off area of the "Stara žica" camp; 2 - the "Kamena" administrative quarters; 3 - the "Hotel" administrative quarters; 4 - the "Kuglana" administrative quarters; 5 - the "Ljetni restoran" administrative quarters; 6 - manufacturing facility; 7 - bunker; 8 - main prison camp road ("Bloody way"); a - quarry; b - water cistern; c - forested area; d - football pitch for administrative staff

Within the fenced-off area of the second camp, "Velika žica" (1950-1956), following a terraced, levelled rocky foundation with a significant longitudinal and lateral slope, initially 18 brick prison pavilions were erected (as well as two additional pavilions for the hospital and the "Centar" pavilion for privileged inmates), and then on the raised part of the camp six more prison pavilions. Around the prison camp "Square", a levelled space for the inmates' drills, there were further erected a kitchen block, a bakery and, a peculiarity – a theatre building. Although the later prison dismantled the prison camp buildings and built replacement buildings for a more contemporary prison complex, on the site of the first camp the ruins of around 39 original prison camp structures have been found which enables an almost perfect reconstruction of the form and appearance of that camp.

In the third prison camp, "Ženski logor" (1951-1952), which is more difficult to access from the island interior over the difficult karst terrain, there were four wooden barracks erected which were dismantled following the abandonment of the camp. However, on the space which had been occupied by the camp the administrative building, the warehouse, the shoreline water cisterns, the jetty and other objects have been preserved.

In the fourth prison camp, "Petrova rupa" (1950-1954), hidden in the island's interior at the bottom of an abandoned bauxite quarry,

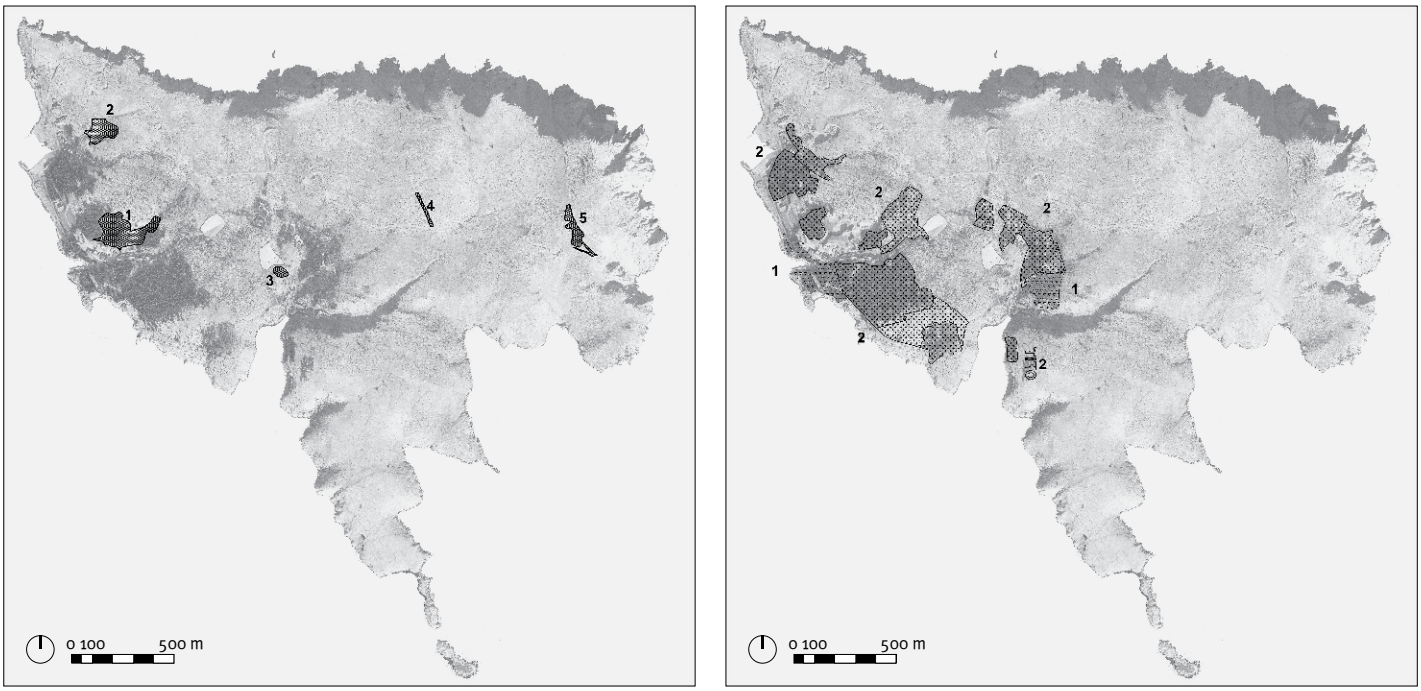


FIG. 5 SPATIAL ARRANGEMENT OF THE QUARRIES ON GOLI OTOK: 1 - FIRST QUARRY; 2 - SECOND QUARRY; 3 - THIRD QUARRY; 4 - FOURTH QUARRY; 5 - FIFTH QUARRY

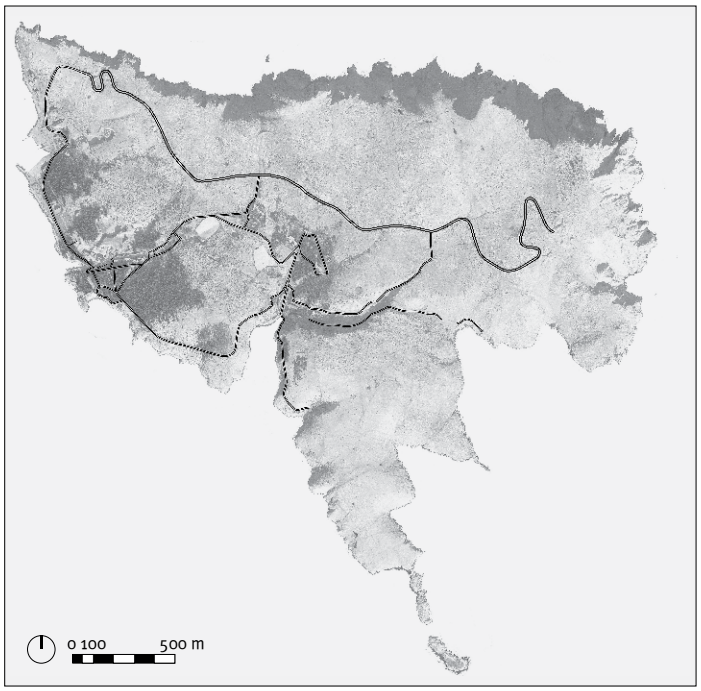
FIG. 6 FORESTED AREAS ON GOLI OTOK: 1 - FORESTED AREAS DURING THE TIME OF THE POLITICAL PRISON CAMP; 2 - FORESTED AREAS DURING THE TIME OF THE PRISON

a wooden barrack for the accommodation of prisoners was erected, alongside a kitchen block. Material traces of this camp are no longer visible *in situ*. One can imagine that the depression where the camp was sited after its removal to another location (and plot of land) in the summer of 1951 was filled in to approximately two thirds of its original depth, and during the period of the later prison was again remodelled into a relaxed sports pitch with stone stands. The prison camp is a rarity of its kind as we have no knowledge of examples in with prison camp inmates were incarcerated under ground level in abandoned quarries unsuitable for the accommodation of humans.

The prison which was established later (1956-1988) mainly used buildings and land inherited from the disused prison camp, but new development programmes for the continuation of manufacturing and agricultural activities, as well as new programmes for the resocialisation of criminals (organising their work, education, healthcare, free time and more) resulted in the removal of individual structures which were to be found there and the construction and equipment of new buildings and spaces. The first stage of development in the construction of the prison can be followed from 1957 (officially from 1953) to 1967, when the institution acted under the authority of the union, and the final phase from 1968 to 1988 when it acted under the authority of the then Republic of Yugoslavia. From the first phase we have inherited the ruins of a manufacturing and processing complex erected near the quarry close to the factory street, for which reason the area above Tatinja cove has taken on the appearance of an abandoned industrial complex, and in the second period changes following larger construction interventions on the site of the abandoned "Velika žica" camp and others.

– **Spaces for enforced labour** – During the period of the political prison camp, quarries were opened and spaces were set up for forestation which were intended for the enforced labour of the prisoners. Opening the quarries took place in step with the pace of the expansion of the camp, and 5 spatial complexes with a collective area of approximately 56,650 m² were dug into the karst landscape from which stone was obtained for architectural and construction purposes, as well as for processing for the domestic (Yugoslav) market and for export (Fig. 5). The establishment of new green spaces on the island was also initiated during the time of the political prison camp on an area of some 5,3 hectares and this continued on an even larger scale during the period of the later prison on an area of some 36 hectares in the period between 1960 to 1964. The processes of reforestation influenced great changes in the appearance of the natural landscape, as well as great changes in the environmental systems of the island which, in time, became a more pleasant place for people to reside (Fig. 6).

– **Transport and communications systems** – For the requirements of the first, second



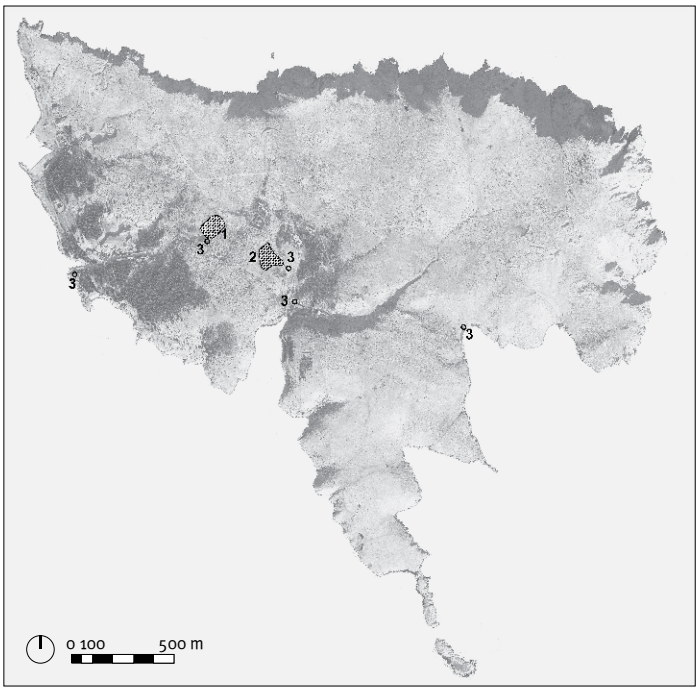


Fig. 7 Network of roads in the political prison camp

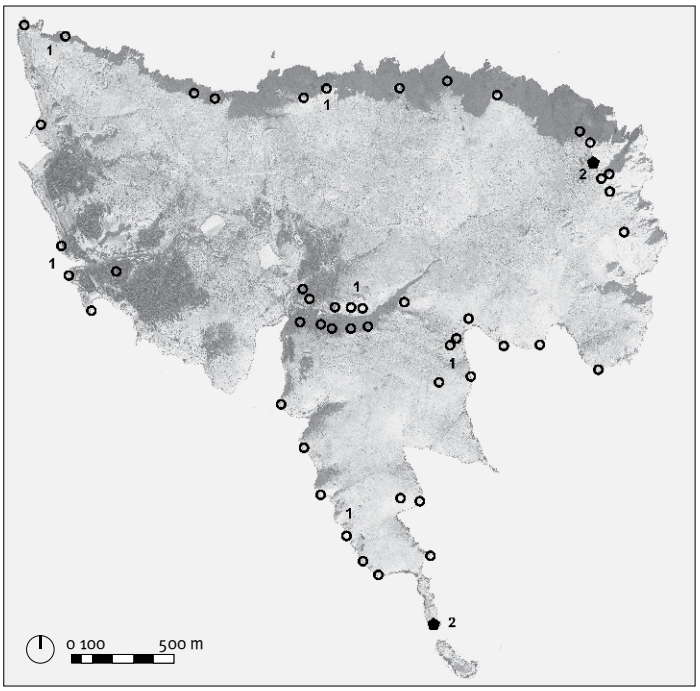
Fig. 8 Cisterns and rainwater collection tanks of the political prison camp: 1 - rainwater collection tank for the "Stara žica" prison camp; 2 - rainwater collection tank for the "Velika žica" prison camp; 3 - cisterns

and third political prison camps in the short period between 1949 and 1951, jetties were built in the Tatinja, Vela draga and Vela Senjska coves, and later, for the needs of a small renovation shipyard, a harbour was also built in Melna cove. The harbours built for the needs of the first prison camp in Tatinja cove and the shipyard in Melna cove were fully rebuilt in the period of the later prison and still today they have the function of docking boats, unlike the harbours for the second and third prison camps in Vela draga and Vela Senjska coves which are in ruins.

During the period of the political prison camp, through the forced labour of the prisoners the camp's roads were build (around 12 km in total length), which broke through the karst landscape, generally following its contours with equal height points in the natural terrain, but due to the uneven relief of the terrain in several places they had to build cuttings, make incisions, banks and sharp bends. Supporting walls and the roads' edgings were made from solid stone elements built using dry stone wall techniques with no cement, while the road surface was constructed very simply by setting down a layer of large pieces of crushed stone pressed onto a levelled stone base (Fig. 7).

– **Infrastructure** – In the first stage of the political prison camp in 1949, water was shipped to the island from the mainland on boats and stored in small cisterns and containers for collecting and storing water which are still preserved today in various locations of the former prison camp. With an increase in the number of inmates, the water stored in the cisterns was used up quickly and they were no longer able to fulfil requirements, and in 1950 and 1951 capacious underground rainwater collection tanks were built to store water and fulfil the requirements of the "Stara žica" and "Velika žica" camps. Their amphora-like curved surfaces with an area of approaching 8900 m^2 were fenced off with dry stone walls and still today dominate the landscape as prominent anthropogenic structures (Fig. 8). A number of derelict electric transformers are still to be found on the island, old abandoned purpose-built structures called "tornjici" *("little towers")*, which as component parts of the power transmission system maintained a connection between medium voltage and low voltage networks for the prison camp and later the prison. Of particular interest is the preserved building of the transformer for the "Velika žica" prison camp due to the fact that inside that building there was also a radio station which broadcast radio news and, from time to time, a special prison camp radio programme.

– **Fortification system** – The political prison camp on the island, during the Cold War period had to have military protection from potential Soviet attacks on Yugoslavia, and equally to secure it from potential escapes by inmates who were considered fifth columnists ready for betrayal and collaboration with the enemy. In order to fulfil the dual requirements for military defence and prevent-



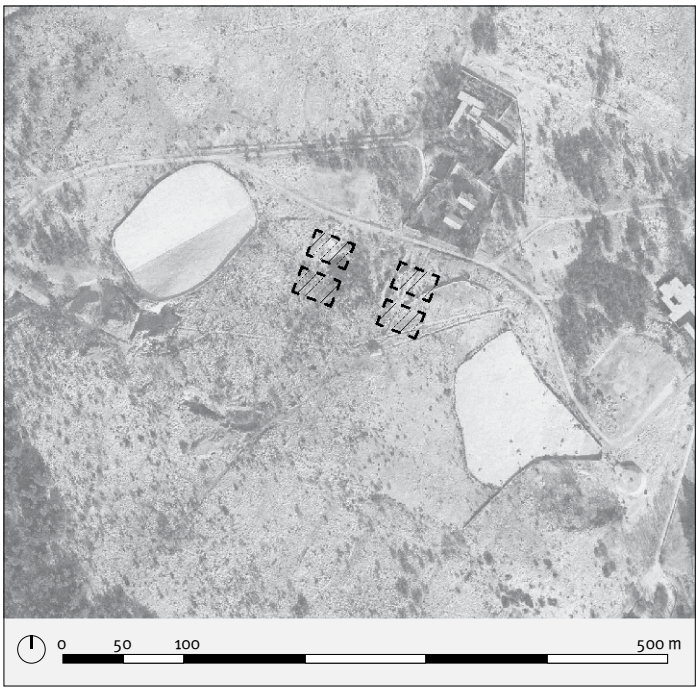


Fig. 9 Fortification system of the political camp: 1 - bunkers; 2 - bunker fortifications

Fig. 10 Approximate location of the graveyards of the political prison camp between two rainwater collection tanks

ing escape a special fortification system was built with sturdy defensive buildings constructed from concrete, iron and stone. The system was comprised of small and larger bunkers which could accommodate sizeable crews for coastal and air defence who were positioned at important strategic locations (the smaller bunkers were set along the perimeter of the entire island, while the larger bunkers were on the prominent ridge of the cliff Mali goli and the highest peak of the island, Glavina, at 227 m above sea level), as well as specially made bunkers which, apart from their military and defence function had to fulfil the function of surveillance of the inmates (Fig. 9).

– **Graveyards** – Many inmates remember that there were several places on Goli otok for the burial of prisoners who died. However, the graves on Goli otok were of a temporary nature due to the fact that in 1953 the remains of the inmates were removed to a communal grave on the mainland, usually in Zagreb or Rijeka's cemeteries, while after 1954 all the graves on the island were dug up so that there remain no traces of them (Bilić, 1998). Inmates who died were usually buried amidst the greatest secrecy at a hidden location, but some inmates nevertheless knew a certain amount about the location of the graves so we can surmise with some reliability that the graveyard was located between the two large rainwater collection tanks alongside the prison camp road which connected the "Stara žica" and "Velika žica" camps, on part of the Maslinje plateau (Fig. 10).

– **Ecohistorical aspect of Goli otok** – Processes that changed the original ecosystem of the island began from the very beginning of human interventions, initially through attempts to exploit bauxite ore (in the period between the two world wars), and then, after the construction of the political camp and prisons (in the period from 1949 to 1970) through the exploitation of natural stone from the island and wood from the mainland (forested) areas of the nearby Velebit Mountains.[11] However, in parallel with these processes, afforestation of the island was carried out, which initially began in the 1950s and continued intensively in the 1960s, so that 41.31 hectares of the rocky island have been afforested to date. In this way, human activities, catalysed by the activities of the political camp and prison, changed not only the ecosystem of Goli otok, which became a more pleasant place for people, but also the ecosystem of the nearby Velebit Mountains (Previšić, Prokić, 2016: 186-196).

11 Stone and wood, as raw material obtained from natural sources on-site or nearby, facilitated the development of processing plants (production of stone and wooden decorative or utility items), which later grew into larger industrial plants for the production of crushed stone and the serial production of terrazzo tiles and wooden furniture. The architectural structures of the abandoned manufacturing buildings and abandoned quarries in the landscape of the island have been preserved, as well as an abandoned cable car on the mainland for the transport of logs from the Velebit Mountains to the shore.

12 This paper is the result of the first author's ongoing research for a PhD thesis at the University of Zagreb, Faculty of Architecture.

Conclusion

The spatial and functional complex of the political prison camp and the prison, adapted to the natural environment of a Mediterranean island with a unique terrain and climate, a geological stone wilderness (karst landscape), a complete lack of water and sparse Aeolian vegetation, came into being under the influence of historical social and political circumstances which enabled methods of force to be used on political prisoners (as well as, in time, more contemporary methods of resocialisation of criminal inmates). The complex of the political camp contains structures and spaces with distinctive spatial arrangements and architectural frameworks which became a powerful weapon in the process of political re-education.

The position and architecture of the buildings for the accommodation and work of the camp administration, as well as the position and architecture of the dwellings for prisoners and the areas for forced labour were planned from the very beginning so that the camp administration provided an effective way of continuous spatial binding and *training* of prisoners in order to create a complex system of observation, interrogation and continuous political re-education in a double (reward – sanction) system of punishment. Exactly those factors ordain the identity and appearance (physiognomy) of Goli otok as a complex spatial entity with peculiarities and variances in relation to other spaces (and landscapes) in Croatia.

However, although in this case anthropogenic (cultural) factors comprise the most significant determinants of the identity of the cultural landscape of the island, with the aim of determining the theoretical model of its protection, use and/or presentation it is necessary to consider all the other characteristics of the island's identity – natural, environmental, sensory and other characteristics (economic, administrative and legal), so that the direction of future research is oriented towards insufficiently researched questions of mutual influences interwoven with the landscape's components, in order to conduct a multi-layered evaluation and categorisation of the cultural landscape with all of its unique characteristics on the basis of a series of criteria (general criteria, criteria of type of heritage, criteria of quality, unique/local criteria and others), as a potential monument of cultural heritage of national value as well as of potential for the cultural development of the island in the future.[12]

[Translated by
Nataly Anderson, Travertine Ltd]

Bibliography and Sources

1. Bilić, Đ. (1998) *Goli otok i Dabravine, logori jugoslavenskog socijalizma*. Zagreb: NIT.
2. Bralić, V. (2019) 'Prostorni i arhitektonski sklop logora na Golom otoku', *Hrvatska revija* (3), pp. 18-26.
3. Dumbović Bilušić, B. (2012) *Krajolik kao kulturno naslijeđe – metode prepoznavanja, vrjednovanja i zaštite kulturnih krajolika Hrvatske.* PhD, University of Zagreb, Faculty of Architecture.
4. Duplančić Leder, T.; Ujević, T. and Čala, M. (2004) 'Duljine obalne crte i površine otoka na hrvatskom dijelu Jadranskog mora određene s topografskih karata mjerila 1:25 000'. In: Lončar, N. (ed.) *Geoadria,* 9 (1), Zadar: Hrvatsko geografsko društvo Zadar, Odjel za geografiju Sveučilišta u Zadru, pp. 5-32., https://doi.org/10.15291/geoadria.127
5. Foucault, M. (1994) *Nadzor i kazna: rađanje zatvora*. Zagreb: Informator, Fakultet političkih znanosti.
6. Korolija, B. and Borović, I. (1966) 'Geology of the isles Grgur, Prvic and Goli otok'*, Bulletin Scientifique Yug. Acad.* A/2, pp. 2-3.
7. Krasnic, M. (2011) *Geologija Golog otoka, njena interpretacija i prezentacija u sklopu geoparka.* Mag. geol., University of Zagreb, Faculty of Science
8. Lovrić, A.Ž.; Antonić, O. and Hrabrić, T. (1998) 'Povijest istraživanja i biogeografske osobitosti otočja Prvić, Grgur i Goli'. In: Arko-Pijevac, M., Kovačic, M. and Crnkovic D. (eds.) *Znanstveno savjetovanje Prirodoslovna istraživanja rijeckog područja.* Rijeka: Prirodoslovni muzej Rijeka
9. Previšić, M. (2013*)* 'Broj kažnjenika na Golom otoku i drugim logorima za informbiroovce u vrijeme sukoba sa SSSR-om (1948.-1956.)'*, Historijski zbornik,* 66 (1). Zagreb: Društvo za hrvatsku povjesnicu
10. Previšić, M. (2014.) *Povijest informbiroovskog logora na Golom otoku od 1949. do 1956. godine.* PhD, University of Zagreb, Faculty of Humanities and Social Sciences
11. Previšić, M. and Prokić, M. (2016) 'Ekohistorijski aspekti proučavanja logora na Golom otoku 1949.-1956.' *Ekonomska i ekohistorija: Časopis za gospodarsku povijest i povijest okoliša*, XII (12). Zagreb: Društvo za hrvatsku ekonomsku povijest i ekohistoriju.
12. Seletković, Z.; Tikvić, I.; Vučetić, M. and Ugarković, D. (2011) 'Klimatska obilježja i vegetacija sredozemne Hrvatske'. In: Matić, S. (ed.) *Šume hrvatskoga sredozemlja*. Zagreb: Akademija šumarskih znanosti.
13. Zavodnik, D.; Pallaoro, A.; Jaklin, A.; Kovačić, M. and Arko-Pijevac, M. (2005) *A benthos survey of the Senj Archipelago.* In: Dulčić, J. (ed.) *Acta Adriatica, 46,* pp. 3-68. Split: Institut za oceanografiju i ribarstvo.
14. *** (2011) 'Odluka o donošenju Prostornog plana uređenja Općine Lopar', *Službene novine Primorsko-goranske županije,*30.12., XIX, 53, http://www.sn.pgz.hr/default.asp?Link=odluke&id=23998 [Accessed: 20.5.2021].

Author's biographies and contributions

Vladi Bralić graduated from the Faculty of Architecture in Zagreb and is currently working on a doctoral dissertation titled *The Cultural Landscape of Goli Otok*.

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This work is a part of an ongoing research started by V.B. and further developed by V.B. and D.K.

Contributions of authors in this article are as follows: conceptualization, D.K. and V.B.; formal analysis, V.B.; investigation, V.B.; methodology, V.B. and D.K.; validation, D.K. and V.B.; writing – original draft, V.B.; writing – review and editing, D.K and V,B.; supervision, D.K. All authors have read and agreed to the published version of the manuscript.

Illustration Sources

Fig. 1, 5-10 Drawing on digital orthophoto map by Bralić, V. and Ilic, L., 2020

Fig. 2-4 Drawing on digital orthophoto map by Bralić, V. and Čupev, A., 2018