

LANDSCAPE DEVASTATION AS A RESULT OF POOR SUSTAINABLE URBAN DEVELOPMENT PRACTICE IN MONTENEGRO

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LANDSCAPE DEVASTATION AS A RESULT OF POOR SUSTAINABLE URBAN DEVELOPMENT PRACTICE IN MONTENEGRO

- **DEVASTATION OF THE CULTURAL LANDSCAPE**

CASE STUDY: “BOKA GARDENS”, KOSTANJICA, KOTOR, BOKA BAY

- **METHODOLOGY:** ANALYSIS OF THE CRUCIAL PHASES IN THE BUILDING PROCESS, WITH SPECIAL FOCUS ON THE

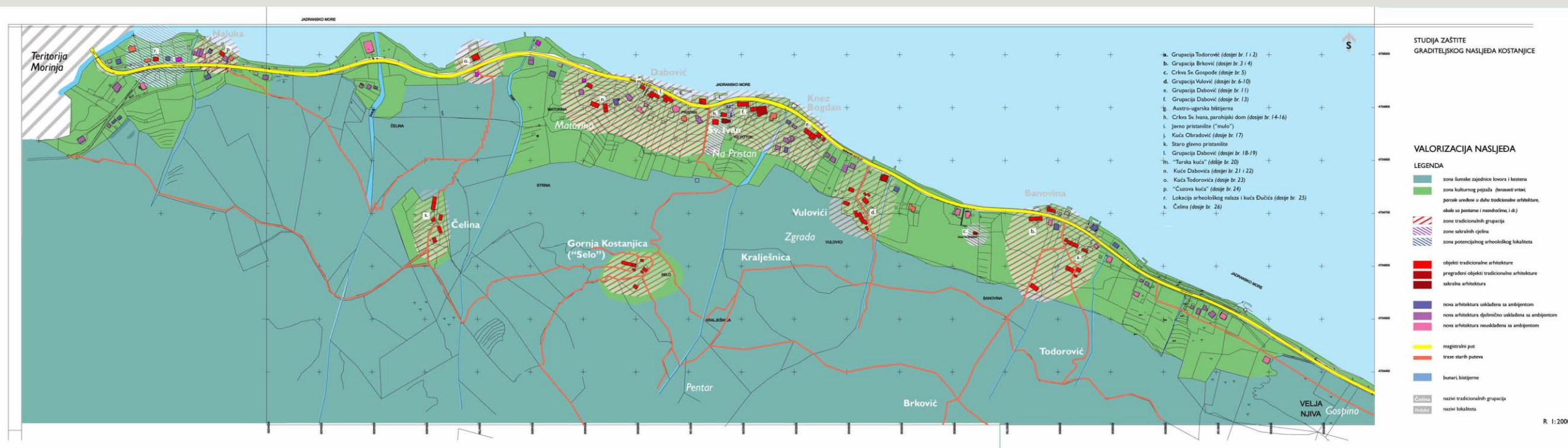
URBAN PLANNING PHASE

Boka Bay – Natural and Culturo-Historical Region of Kotor protected by UNESCO

“The Outstanding Universal Value of the Culturo-Historical Region of Kotor is embodied in the quality of the architecture in its fortified and open cities, settlements, palaces and monastic ensembles, and their harmonious integration to the cultivated terraced landscape on the slopes of high rocky hills. The Natural and Culturo-Historical Region of Kotor bears unique testimony to the exceptionally important role that it played over centuries in the spreading of Mediterranean cultures into the Balkans” /UNESCO

CASE STUDY: “BOKA GARDENS”, KOSTANJICA

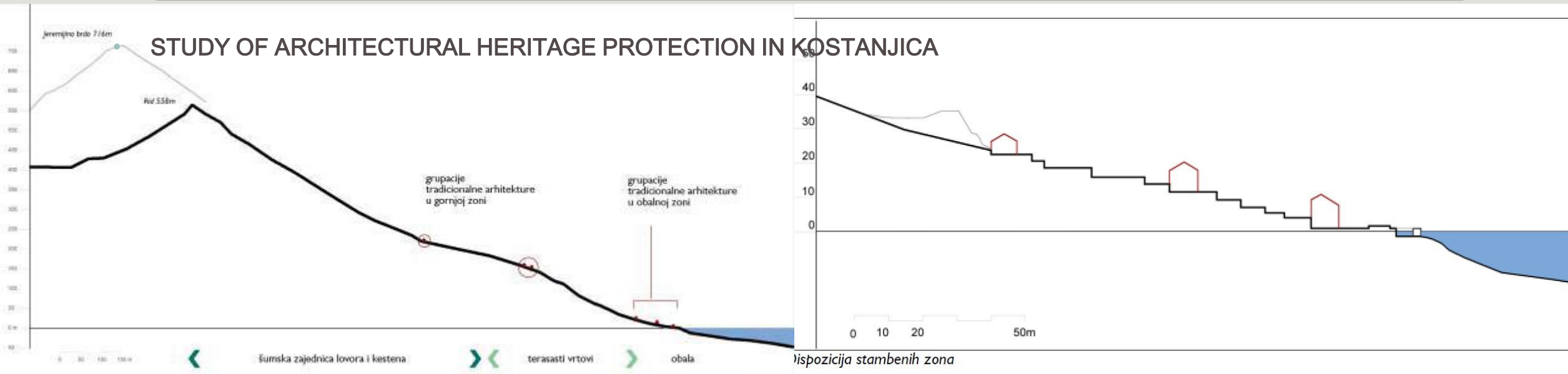
STUDY OF ARCHITECTURAL HERITAGE PROTECTION IN KOSTANJICA



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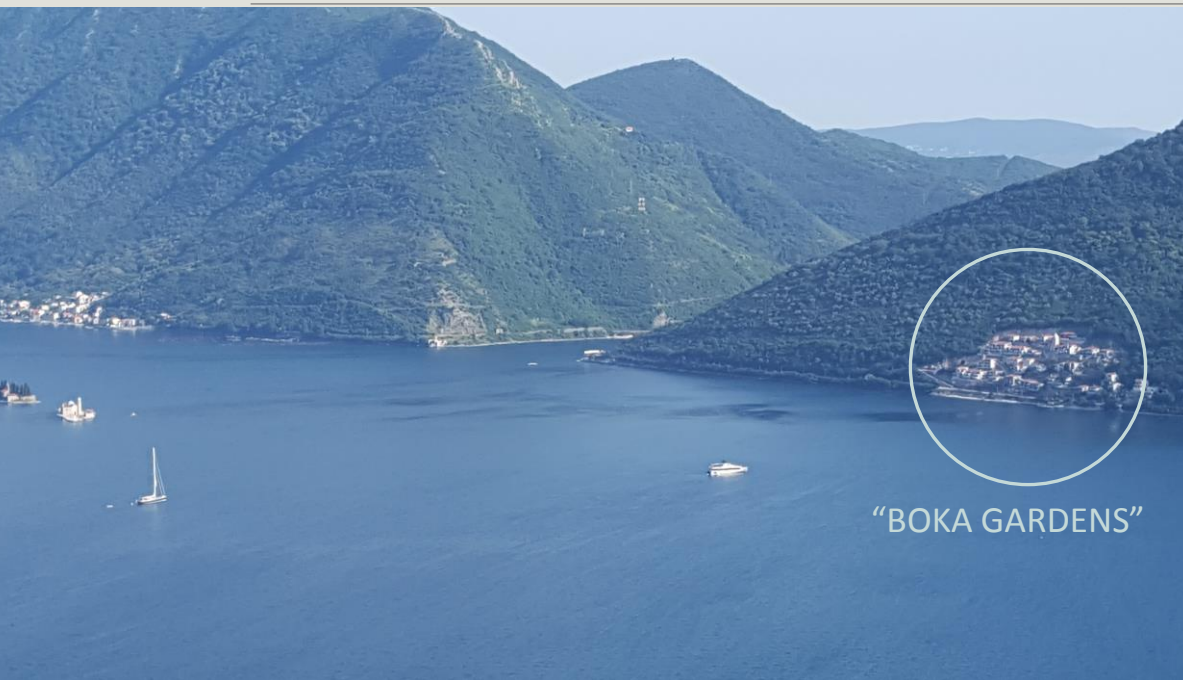


CASE STUDY: “BOKA GARDENS”, KOSTANJICA



GUIDELINES FROM THE STUDY: **LANDSCAPE PROTECTION:** (1) PRESERVATION AND REVITALISATION OF THE CHESTNUT TREES AND LAUREL FOREST (2) PRESERVATION OF THE CULTURAL LANDSCAPE ELEMENTS (TERRACED GARDENS WITH VEGETATION, TRADITIONAL LANDSCAPING ELEMENTS) (3) KEEPING THE EXISTING SPATIAL CONCEPT OF THE SETTLEMENTS (LARGE OPEN GREEN AREA BETWEEN THE CLUSTERS OF HOUSES) **NEWBUILDING:** (1) MINIMUM OF NEWBUILT ROADS, HARMONIZED WITH THE LAND CONFIGURATION (CONTOUR LINES) and EXISTING RETAINING WALLS (2) MODERATE NEWBUILDING (3) CONSIDERATION OF THE EXISTING SPATIAL CAPACITIES: LAND SLOPES, LANDSCAPING, ETC. WITH THE BUFFER ZONES TOWARDS THE EXISTING TRADITIONAL ARCHITECTURE

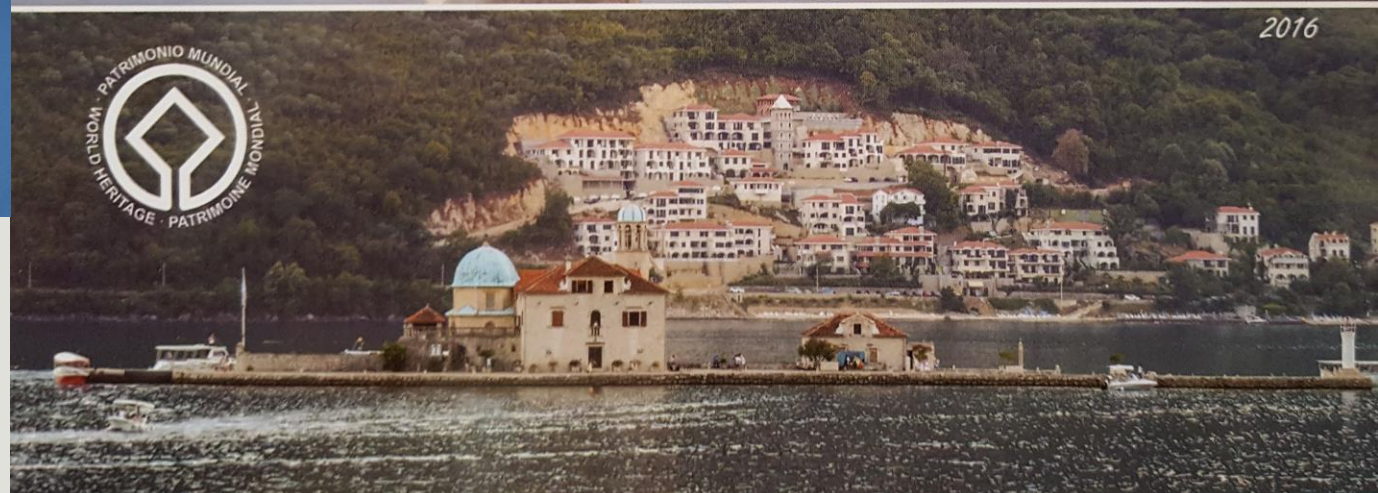
CASE STUDY: "BOKA GARDENS", KOSTANJICA



"BOKA GARDENS"



2006



2016

"Greetings from Perast", ironic postcard from the theatre play
"KOTO(R) O KOTORU" performed by citizens of Kotor

CASE STUDY: “BOKA GARDENS”, KOSTANJICA



CASE STUDY: “BOKA GARDENS”, KOSTANJICA

- **BUILDING/USAGE PERMIT PHASE:**
 - SELECTIVE AND INSUFFICIENT BUILDING INSPECTION (AROUND 100.000 ILLEGALLY BUILT OBJECTS IN MNE)
 - NO CONTROL OF THE LANDSCAPE ISSUES ON THE BUILDING SITE
- **DESIGN/ BUILDING PERMIT PHASE:**
 - SELECTIVE AND INSUFFICIENT URBANISTIC INSPECTION (ACTS UPON AN APPEAL)
 - NO PROFOUND CONSIDERATIONS OF THE LANDSCAPE
 - ARCHITECTS THE ONLY ONE RESPONSIBLE FOR THE PROJECT AND OBTAINMENT OF THE BUILDING PERMIT
 - PROFIT DRIVEN ARCHITECTURE, NO PROMOTED PROPER CONTEMPORARY DESIGN GUIDELINES AND BUILDING EXAMPLES
- **URBAN PLANNING PHASE:**
 - LACK OF ANY KIND OF CONTROL OF URBAN PLANNERS' WORK AND THE FINAL VERSIONS OF URBAN PLANS
 - INVESTOR'S URBAN PLANNING (CORRUPTION) AS THE MOST EFFICIENT WAY OF DOING BUSINESS IN CIVIL ENGINEERING

CASE STUDY: “BOKA GARDENS”, KOSTANJICA

- OPERATIONS/GOVERNANCE:
 - NO COMPETENT INSTITUTIONS ON THE SUBJECT OF CULTURAL LANDSCAPE
 - NO COMPETENT INSTITUTIONS ON THE SUBJECT OF LANDSCAPE PROTECTION
 - REGIONAL CULTURAL MONUMENT PROTECTION INSTITUTE IN KOTOR THE ONLY ONE RESPONSIBLE FOR THE PROTECTION OF THE ARCHITECTURAL AND CULTURAL HERITAGE IN KOTOR
 - POOR, UNCOORDINATED AND INEFFICIENT INTERINSTITUTIONAL COOPERANCE
 - UNCLEAR AUTHORITIES (“NO ONE TO BLAME”)

CASE STUDY: “BOKA GARDENS”, KOSTANJICA

- **POLITICS/VISIONS/STRATEGIES:**

- ENVIRONMENT AND NATURE PROTECTION PROCLAIMED AS “THE HIGHEST PRIORITY” SINCE THE ECOLOGICAL STATE DECLARATION IN 1992.

- NATIONAL SUSTAINABLE DEVELOPMENT STRATEGY (2016-2030), THE CRUCIAL GOVERNMENT DOCUMENT ON THE SUBJECT OF SUSTAINABLE DEVELOPMENT, DOES NOT INCLUDE THE TERM “CULTURAL LANDSCAPE”

- THE LACK OF CONCRETE LANDSCAPE PROTECTION/INSPECTION METHODS/STRATEGIES

- INSUFFICIENT SCIENTIFIC/EDUCATIONAL INSTITUTIONS ON THE SUBJECT OF ENVIRONMENT/LANDSCAPE PROTECTION

- **GENERAL NEGATIVE TRENDS:**

- CORRUPTION AT ALL LEVELS

- PRIVATE PROFIT OVER THE PUBLIC GOOD

CASE STUDY: “BOKA GARDENS”, KOSTANJICA

- DESIGN/BUILDING/USAGE PERMIT PHASE 2012-2016



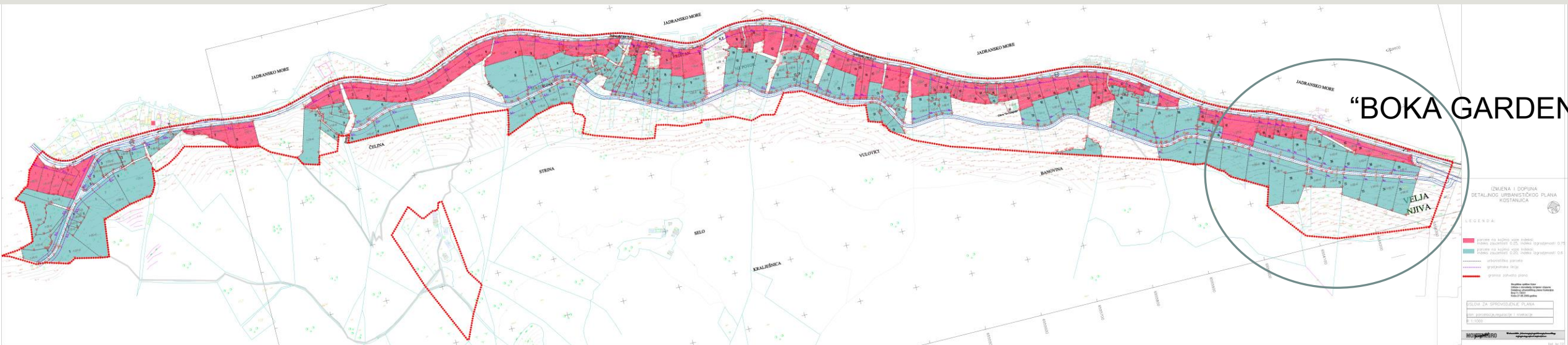
TOURIST RESORT CONSISTED OF 32 “TERRACED HOUSES”, WITH “CAPTIVATING PANORAMIC VIEW”, “MEDITARRANEAN STYLE ARCHITECTURE”

CASE STUDY: “BOKA GARDENS”, KOSTANJICA

- URBAN PLANNING PHASE
- AMENDS AND EXTENSIONS OF THE DETAILED URBAN PLAN “KOSTANJICA”, 2009.
- URBANIZATION PRINCIPLES/GUIDELINES/CONDITIONS:
 - (1) NEWBUILDING APPLIED ONLY IN SEGMENTS, INDIVIDUAL HOUSES OR SMALLER CLUSTERS OF HOUSES
 - (2) COMPREHENSIVE PROTECTION OF THE LANDSCAPE: PRESERVING EXISTING VEGETATION AND MORPHOLOGY OF THE TERRAIN AS AN AUTHENTIC LANDSCAPE
 - (3) NEW BUILDINGS TO BE ADJUSTED TO THE SURROUNDING (LAND CONFIGURATION AND THE OPEN SEA VIEWS)
 - (4) URBAN PLANNING IN ACCORDANCE WITH THE CONSERVATION CONDITIONS OF REGIONAL CULTURAL MONUMENT PROTECTION INSTITUTE IN KOTOR (REFERRING TO THE UNESCO’S WORLD HERITAGE SITE)
 - (5) SPATIAL INTERVENTIONS DO NOT JEOPARDIZE THE ENVIRONMENT
 - (6) OPTIMAL BUILT/OPEN SPACE RATIO
 - (7) MAXIMUM HEIGHT OF THREE FLOORS ABOVE GROUND
 - (8) LANDSCAPING AIMED AT CREATING “SETTLEMENTS IN GREEN”, EACH PLOT INCLUDING AT LEAST 50% OF GREEN AREA WHERE MINIMUM 3 LAUREL TREES AND 1 CHESTNUT TREE ARE PLANTED

CASE STUDY: “BOKA GARDENS”, KOSTANJICA

- AMENDS AND EXTENSIONS OF THE DETAILED URBAN PLAN “KOSTANJICA”, 2009.

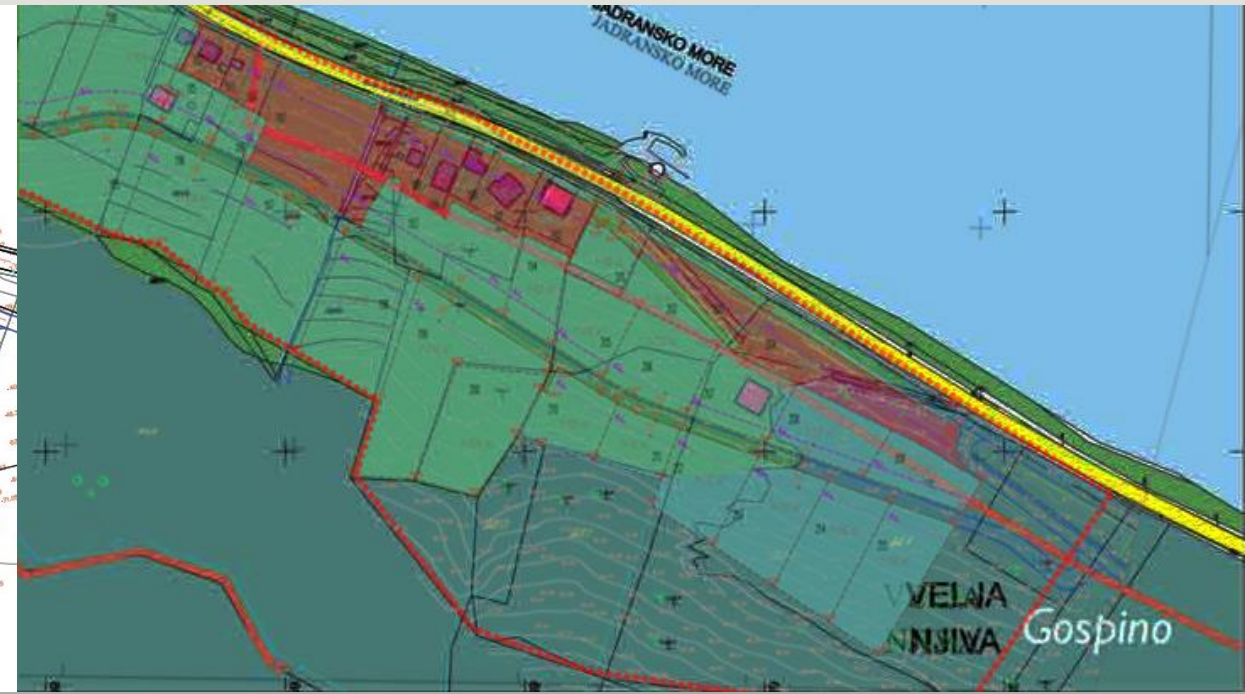
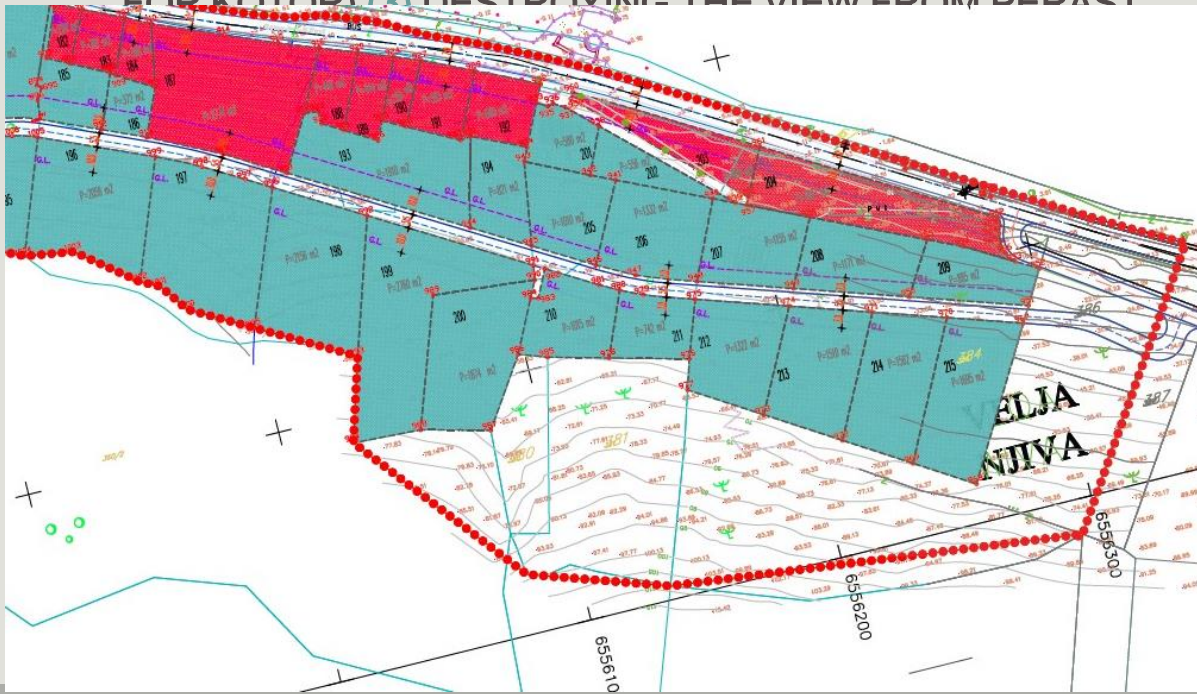


AMENDS AND EXTENSIONS OF THE DETAILED URBAN PLAN "KOSTANJICA", 2009



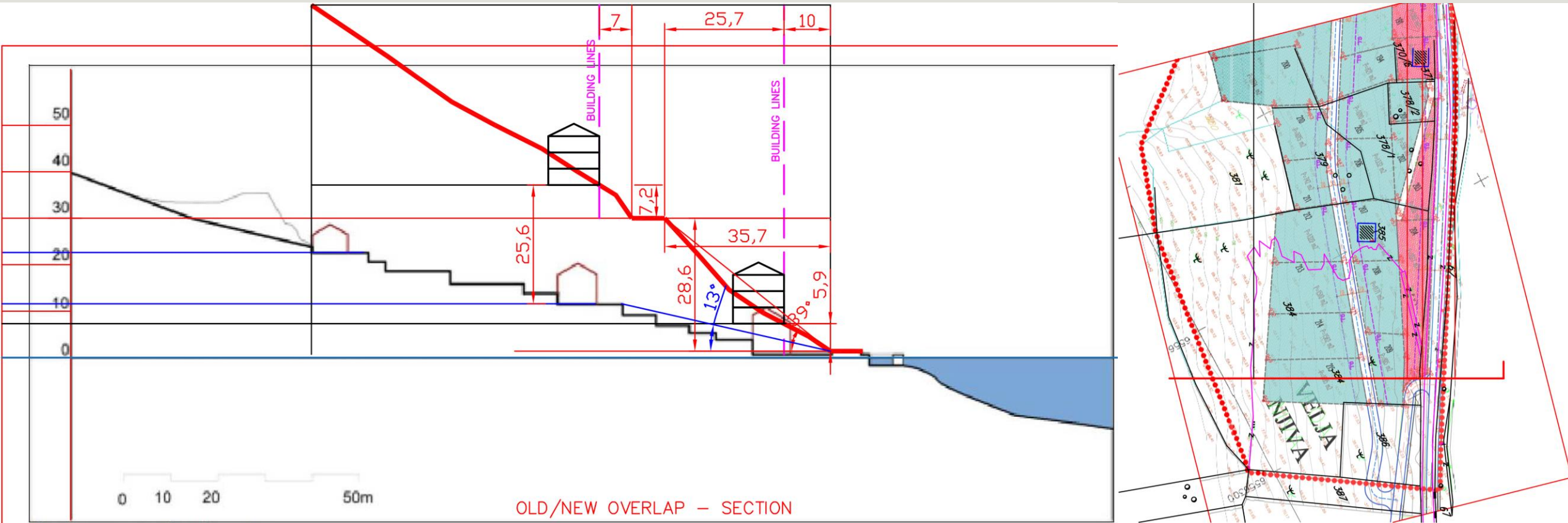
CASE STUDY: “BOKA GARDENS”, KOSTANJICA

- AMENDS AND EXTENSIONS OF THE DETAILED URBAN PLAN “KOSTANJICA”, 2009.
- OBJECTIONS BY NGO “EXPEDITIO”: **THE NEW URBAN PLAN IS IN OPPOSITION TO THE GUIDELINES FROM THE STUDY:**
 - (1) INTRODUCING EXCESSIVE TRAFFIC NETWORK/ ANOTHER WIDE TWO WAY ROAD
 - (2) UNACCEPTABLE EXTENSIVE AND HIGH DENSITY NEWBUILDING IN THE EASTERN AREA OF KOSTANJICA (DESTROYING A PART OF THE CHESTNUT TREE AND LAUREL FOREST-MARKED AS FOREST IN THE SPATIAL PLAN FOR KOTOR)
 - (3) DESTROYING THE VIEW FROM DEPAŠT



CASE STUDY: "BOKA GARDENS", KOSTANJICA

- AMENDS AND EXTENSIONS OF THE DETAILED URBAN PLAN "KOSTANJICA", 2009.



CASE STUDY: “BOKA GARDENS”, KOSTANJICA

- URBAN PLANNING PHASE
- AMENDS AND EXTENSIONS OF THE DETAILED URBAN PLAN “KOSTANJICA”, 2009.
- URBANIZATION PRINCIPLES/GUIDELINES/CONDITIONS:
 - (1) NEWBUILDING APPLIED ONLY IN SEGMENTS, INDIVIDUAL HOUSES OR SMALLER CLUSTERS OF HOUSES **DENSE NEWBUILT SETTLEMENT, HOUSES IN CLOSE PROXIMITY**
 - (2) COMPREHENSIVE PROTECTION OF THE LANDSCAPE: PRESERVING EXISTING VEGETATION AND MORPHOLOGY OF THE TERRAIN AS AN AUTHENTIC LANDSCAPE **EXTENDED URBANISED AREA HAS DESTROYED A SIGNIFICANT PART OF THE CHESTNUT TREE AND LAUREL FOREST. IN ORDER TO USE BUILDING CAPACITIES TO THE FULLEST, EXCESSIVE EXCAVATIONS HAVE BEEN DONE DESTROYING THE MORPHOLOGY OF THE TERRAIN**
 - (3) NEW BUILDINGS TO BE ADJUSTED TO THE SURROUNDING (LAND CONFIGURATION) **IMPOSSIBLE IN THE FIRST PLACE, SINCE THE BUILDING HAS BEEN PLANNED ON THE EXTREMELY STEEP LAND**
 - (4) URBAN PLANNING IN ACCORDANCE WITH THE CONSERVATION CONDITIONS OF REGIONAL CULTURAL MONUMENT PROTECTION INSTITUTE IN KOTOR (REFERRING TO THE UNESCO’S WORLD HERITAGE SITE) **URBAN PLAN IN OPPOSITION TO THE STUDY OF ARCHITECTURAL HERITAGE PROTECTION AND CONSERVATION GUIDELINES**
 - (5) SPATIAL INTERVENTIONS DO NOT JEOPARDIZE THE ENVIRONMENT **SPATIAL INTERVENTIONS HAVE IRREVERSIBLY DAMAGED THE ENVIRONMENT**
 - (6) OPTIMAL BUILT/OPEN SPACE RATIO **TOO DENSE AND EXCESSIVE NEWBUILDING COMPARED TO THE TRADITIONAL SPATIAL CONCEPTS**
 - (7) MAXIMUM HEIGHT OF THREE FLOORS ABOVE GROUND **RETAINING WALLS OVER TWO-THREE FLOORS, 5 STORIES HIGH STAIRCASE/LIFT TOWERS**
 - (8) LANDSCAPING AIMED AT CREATING “SETTLEMENTS IN GREEN”, EACH PLOT INCLUDING AT LEAST 50% OF GREEN AREA WHERE MINIMUM 3 LAUREL TREES AND 1 CHESTNUT TREE ARE PLANTED **SCARCE AND INSUFFICIENT GREEN AREAS AND TREES**

CASE STUDY: “BOKA GARDENS”, KOSTANJICA

GUIDELINES FROM THE STUDY:

LANDSCAPE PROTECTION:

- (1) PRESERVATION AND REVITALISATION OF THE CHESTNUT TREES AND LAUREL FOREST
- (2) PRESERVATION OF THE CULTURAL LANDSCAPE ELEMENTS (TERRACED GARDENS WITH VEGETATION, TRADITIONAL LANDSCAPING ELEMENTS)
- (3) KEEPING THE EXISTING SPATIAL CONCEPT OF THE SETTLEMENTS (LARGE OPEN GREEN AREA BETWEEN THE CLUSTERS OF HOUSES)

NEWBUILDING:

- (1) MINIMUM OF NEWBUILT ROADS, HARMONIZED WITH THE LAND CONFIGURATION (CONTOUR LINES) AND EXISTING RETAINING WALLS
- (2) MODERATE NEWBUILDING
- (3) CONSIDERATION OF THE EXISTING SPATIAL CAPACITIES: LAND SLOPES, LANDSCAPING, ETC. WITH THE BUFFER ZONES TOWARDS THE EXISTING TRADITIONAL ARCHITECTURE

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- CASE STUDY: “BOKA GARDENS”, KOSTANJICA

PRESENT STATE:

- 2016. UNESCO WARNING
- HIA (HISTORIC IMPACT ASSESSMENT) STUDY, SPECIAL SECTION “KOSTANJICA”

SEEKING FOR A SOLUTION :

- CLEARLY DEFINED AUTHORITIES AND RESPONSIBILITIES
- MULTIDISCIPLINARY, COMPREHENSIVE, INTERINSTITUTIONAL APPROACH
(URBAN PLANNERS, ARCHITECTS, LANDSCAPE ARCHITECTS, CONSERVATIONISTS, ENVIRONMENTAL ENGINEERS, ENGINEERS OF FORESTRY ETC.)
- CONCRETE AND PRECISE REGULATIONS AND GUIDELINES IN TERMS OF THE LANDSCAPE PROTECTION
(IDENTIFICATION AND MAPPING OF THE EXISTING VEGETATION, PROVIDING AN ACCURATE BASE FOR THE URBAN PLANS, SPECIFICATION AND FURTHER INSPECTION OF THE APPLIED LANDSCAPING ELEMENTS, INTRODUCING LANDSCAPE INSPECTION DURING THE BUILDING PROCESS)

LANDSCAPE DEVASTATION AS A RESULT OF POOR SUSTAINABLE URBAN DEVELOPMENT PRACTICE IN MONTENEGRO

- PROVIDING PARADIGMATIC MODELS IN CONTEMPORARY ARCHITECTURE

Architecture adjusting to the landscape

By following the contour lines and earth sheltering

“Artist residence in Boka” Competition winning project of Tomohiro Hata

LANDSCAPE DEVASTATION AS A RESULT OF POOR SUSTAINABLE URBAN DEVELOPMENT PRACTICE IN MONTENEGRO

Architecture adjusting to the landscape

By regardful terraced landscaping and planting dense, autochthone vegetation

CONSLUSION:

The case study of “BOKA GARDENS” have revealed many weaknesses of the Sustainable Urban Development practice in Montenegro.

In order to overcome profoundly harmful tendencies of landscape devastation by inappropriate newbuilding, an integrative, multidisciplinary, interinstitutional approach have to be taken, followed by precise and clear regulations and methods of the landscape protection.

Also, cultural landscape has to be recognized and included in all significant sustainable development agendas and strategies, as well as in the operative measures of the landscape protection. To conclude, preservation and improvement of the landscape is a crucial part of the environment protection and thus the only way of achieving Sustainable Development.

House in Bigova (Kotor), arch. Vasilije Milunovic



LANDSCAPE DEVASTATION AS A RESULT OF POOR SUSTAINABLE URBAN DEVELOPMENT PRACTICE IN MONTENEGRO

References:

- Ilija Lalosevic, Aleksandra Kapetanovic, Biljana Gligoric, Jelena Franovic: Study of architectural heritage protection in Kostanjica, (Podgorica: Faculty of Architecture, 2008.)
- MONTENEGRO PROJECT: Amends and extensions of the detailed urban plan "Kostanjica", 2009.

Sources of images:

- Slide 4,5,6,7 study of architectural heritage protection in Kostanjica (p. 10,16,17,18,22,26,33,35)
- Slide 8,9,13 (on the left, center),23 photographs courtesy of Kosara Kujundzic