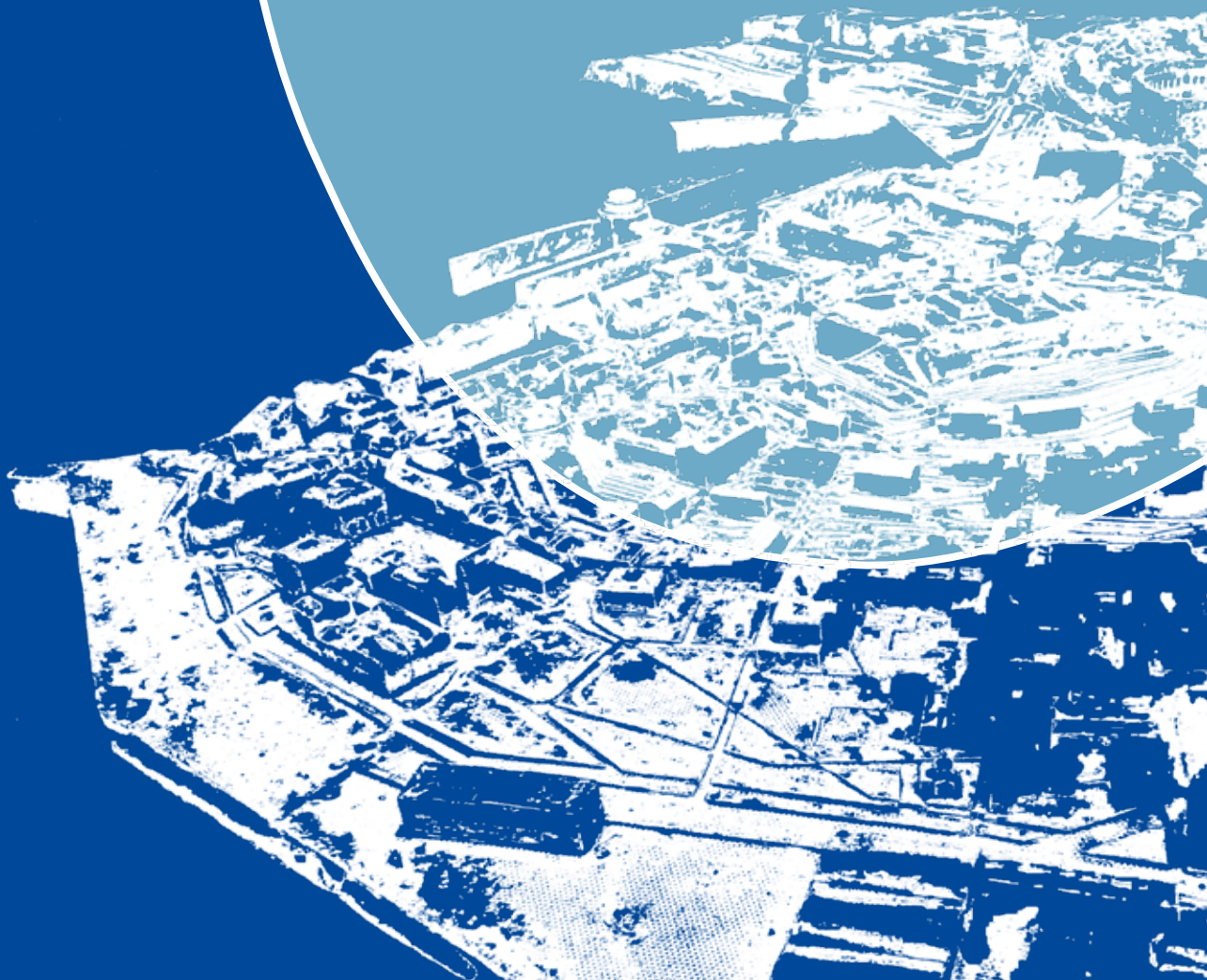


# CAMPULA

## Sustainable Development and Design of the Coastal University Campus in Pula

*Project Documentation 2019/20*



**Sustainable Development and Design of the  
Coastal University Campus in Pula**

Project Documentation  
2<sup>nd</sup> semester, winter term 2019/20

**IMLA - International Master of Landscape Architecture**

Weihenstephan.Triesdorf University of Applied Sciences, Freising (Germany)  
Nürtingen-Geislingen University, Nürtingen (Germany)

[www.imla-campus.eu](http://www.imla-campus.eu)



Introduction	6
The green Pula campus	12
Project brief	22
Student projects	30
Imprint	68

# < Contents



Panoramic view of the Juraj Dobrila University of Pula

# Introduction





**Sanela Klarić**  
International Burch University  
Sarajevo

Pula is the largest city on the Istrian peninsula and the eighth largest city in the country. The strongest landmarks of the city are Pula Arena, the walls of the old city as well as Shipyard Uljanik. Shipyard Uljanik somehow creates a huge barrier between the city and the sea, in the form of a large industrial landmark in the core of the city center. Shipyard Uljanik was founded in 1856 as a shipyard of the Austro-Hungarian Navy and continued to work until 2019 when this huge company was closed. This industrial history gives a specific character to the city to which citizens of Pula identify themselves. Commitment to the development of the region generated the idea on university education.

The CAMPULA project had the aim to design a resilient campus and make the plan for a sustainable development which would improve the city educational capacities of Juraj Dobrila University in Pula. The University was founded at the beginning of the 21st century, on 29 September 2006. Pula became the youngest university-city in Croatia. The constantly growing university with about 3000 students today, accommodated in a space of approximately 12.600 m<sup>2</sup> on the site of a former hospital, has no clear plan for future development.

For this reason the partners of the project - Juraj Dobrila University Pula, Faculty of Economics and Tourism "Dr. Mijo Mirković", University of Sarajevo, International Burch University Sarajevo, Hochschule für Wirtschaft und Umwelt Nürtingen and Hochschule Weihenstephan-Triesdorf - agreed to organize an international student

workshop with the priority to create high-quality design and ecological spatial conditions for students and members of the university.

After preparation work at the home institutions, students spent two weeks in a joint workshop in Pula - observing, studying, analysing, communicating, interviewing, discussing, experimenting, and consulting to come up with optimal solutions for the all users and Pula citizens. The task was not easy especially due to the students' different backgrounds (landscape architecture, urban planning, horticulture, architecture, economy, history and tourism) as well as very wide contest for the study and planning.

An additional task for all was the inclusive design of urban spaces and the activation of the potentials of "green and blue infrastructure" as added value and contribute to a sustainable model of the "Adriatic University" Pula.

I am delighted to confirm that this model of international and interdisciplinary cooperation worked very well bringing out great project ideas, presented in this publication with comprehensive and multi-layered understanding of the urban context and a specific focus on the character and potential of the open spaces. I am sure that the project ideas will provoke, motivate and inspire local authorities to use the ideas and the experience of young internationals working in teams in their future planning and work.



**Kristina Afrić Rakitovac**  
Juraj Dobrila University of Pula

Photo source: [https://fet.unipu.hr/fet/en/kristina.afric\\_rakitovac](https://fet.unipu.hr/fet/en/kristina.afric_rakitovac)

The project 'CAMPULA - Sustainable Development and Design of the Coastal University Campus in Pula, Istria, Croatia' was realised at the Juraj Dobrila University of Pula in the period 18th - 25th October 2019, as an IMLA Main Project II and an International Kick-off-Workshop.

The Juraj Dobrila University of Pula, founded on 29 September 2006, is one of the youngest universities in Croatia. Two components, the Faculty of Economics and Tourism "Dr. Mijo Mirković" and the Faculty of Educational Sciences, were founded 60 years ago. Today the University enrolls about 3000 students.

The city of Pula is located in the south of the Istrian Peninsula, in a spacious bay surrounded by seven hills. It has a rich cultural and historical heritage which is 3000 years old, a wonderful coastline and a friendly population. Pula is an economic, cultural, traffic, medical, educational, trade and partially administrative center of the Istrian County, the most developed Croatian region.

The aim of the project was to propose a sustainable development and (climate) resilient design of the campus of the Juraj Dobrila University in Pula. The priority of the study project was the systematic creation of high-quality design and ecological spatial conditions for students and members of the university. Currently, the space requirement of approx. 12.600 m<sup>2</sup> on the site of a former hospital is being developed.

The University of Pula was glad to host this very interesting project. It has involved professors and 38 students from the Faculty of Economics and Tourism "Dr. Mijo Mirković" Pula, graduate study program Management and Entrepreneurship and graduate study program Economics.

The possibility to collaborate with colleagues from different science disciplines coming from various countries, proposed as a new learning method, was very inspiring for students and professors. The collaboration was a very motivating, challenging and useful experience for all participants. The University of Pula is very interested to continue the collaboration in the future.



**Ingrid Schegk**  
IMLA Programme Director

What a joy to study at a university by the sea, how nice to experience a coastal campus! The Juraj Dobrila University in Pula indeed offers its students a very charming place to study, a city known to many as a holiday destination. However, in addition to a multitude of tourist highlights, both cultural and natural, the city of Pula also has the typical problems of a modern coastal city:

- a high presence of cars, weaknesses in public transport and hardly any cycling infrastructure
- a shipyard, until now a source of work and employment for a large number of people in Pula, with an uncertain economic future
- a shoreline that is not very inviting and in parts hardly accessible
- and finally a campus area on the site of a former hospital, which represents great potential but also an enormous challenge for the university

The idea of offering an interdisciplinary and international study project within this framework arose against the background of the Erasmus+ project CO-LAND, in which the Weihenstephan and Nürtingen Universities are project partners.

The acronym CO-LAND stands for inclusive coastal landscapes: activating green and blue infrastructure for sustainable development of the urban-land interface. The project website describes the importance of these landscapes: "Coastal landscapes across Europe are often characterized by overlaying and competing land uses. They are focus areas for settlements and infrastructure, especially road and

train networks, and many industries and commercial zones that benefit from close access to harbours. Conversely, the tourism industry is also a major driving force with its own development dynamics and typical spatial patterns."

This is precisely why urban coastal landscapes such as those in Pula are well-suited as study and research projects for planners and designers in close cooperation with other disciplines such as economics, tourism, etc.

Another important aspect of the CAMPULA project was the perspective of the various social groups and stakeholders. In this regard too, the project is fully in line with the objectives formulated in the CO-LAND network:

"The overall goal of this project is to make higher education more relevant for society. We want to equip students not only with relevant knowledge, methods and tools, but also encourage them in building visionary and democratic mindsets. Planning and design decisions need to derive their legitimacy from a grounded understanding of local needs, values and goals." (Cf.: <https://www.coland.eu/>).

For the opportunity to study these needs, values and goals in Pula, with the local conditions on campus, and for the dedicated cooperation and support of our hosts, I express my sincere thanks. I am also grateful for the financial support from the Bavarian BAYHOST programme, which enabled the project team to make a preliminary visit to Pula in autumn 2018.

Finally, I hope that the present planning and design results can be a fruitful contribution to the city and campus development in Pula.



**Emira Hukić**  
University of Sarajevo  
Faculty of Forestry

Is the Campus in Pula an inspiring place, calling to academic excellence? Is it attractive for education and life-long learning and can it offer creativity in science and arts? The answer can be found in the first expressions of the students, teachers and people of Pula when they are asked how do they feel about Campus.

How to put full potential into force and how to get the Campus in Pula to become center of education and science?

The complexity of space, being both the university campus and the hospital, its usage through history created today multilayered character and multiple symbolism. Considering the development of Pula and its industrial history through times, people of Pula think that having university education is important for technologic development of Istrian region. Possible transformation of the space should reflect this imperative and direct future development of Campus to become the place of regional development.

For the development of Campus having a functional green open-spaces is extremely important. To make the Campus which is attractive all people, the green elements should sustain completeness of inner space and be connected to outside space. The full potential of green open-spaces can be reached with a fewer interventions since the most green elements are in good condition and they are exceptionally valuable in the environmental and esthetic sense. They could be used for unrevealing the potential of space for student culture and connections.

The evaluation was made by students of the Landscape Architecture Faculty of Forestry University of Sarajevo during the CAMPULA project in October 2019. Their survey's results gave clear information about functional potential of green elements in the Campus. As the part of a problem-based study modules, students had the advantage to work on the international landscape project with the opportunity to exchange and learn about economy and tourism, get practice from the experts in landscape architecture, to connect with international students and learn about the city of Pula.

With very alive memories to this experience, on behalf of the Faculty of Forestry in Sarajevo I would like to express gratitude to all which contributed to the project CAMPULA, coming from the Juraj Dobrila University Pula, Faculty of Economics and Tourism "Dr. Mijo Mirković", the International Burch University Sarajevo, both Hochschule für Wirtschaft und Umwelt Nürtingen and Hochschule Weihenstephan Triesdorf, and last but not least to the CEEPUS III Network no. CIII-Freemover for funding.

# The green Pula campus





Representative high value cedrus tree  
Photo: Emira Hukić

### Introduction to green open space issues of Pula and the Campus

The urban green open-spaces in the city of Pula flourish with numerous plant species. Some of them were planted in the late 19th and early 20th centuries during the rule of the Austro-Hungarian Empire and afterwards, Italy. Many of them are, to name a few, Aleppo pine (*Pinus halepensis*), cypress (*Cupressus sempervirens*) and evergreen oak (*Quercus ilex*) spontaneously spread around the city. Many exotic plants were introduced during this period.

Many species did not withstand climatic and pedological conditions like papaya (*Carica papaya*), different palm trees (*Copernicia* sp.), spoon flower (*Dasylyrion* sp.), bald cypress (*Taxodium distichum*), arabian coffee (*Coffea arabica*), papyrus (*Cyperus papyrus*), plantain (*Musa x paradisiaca*), date-palm (*Phoenix x dactylifera*), giant sequoia (*Sequoiadendron giganteum*), coast redwood (*Sequoia sempervirens*), Adam's needle and thread (*Yucca filamentosa*), cedar of Lebanon (*Cedrus libani*), Chinese windmill palm (*Trachycarpus fortunei*), Mediterranean fan palm (*Chamaerops humilis*), southern magnolia (*Magnolia grandiflora*) and Jeffrey pine (*Pinus jeffreyi*).

Some of the most important green areas in Pula are: "Šijanska šuma", the Park under the Arena, Valerija's Park, the Park of Franjo Josip I, Park of the King Zvonimir, the Tito's Park, the Park of King Petar Krešimir the IV, the Park of the Graz City, the Newlyweds Park, the Hugues Park, the Navy, the Montezaro, the Giardini, etc. All of them fulfill sociological, ecological and aesthetic functions that are necessary for the quality of life to numerous users. Fortifications surrounding the city, among them the one in the area of Campus Pula, are important cultural landscape elements.

The urban green open-spaces of the Campus Pula represent a complex of several categories of urban greenery: green walls, institutional greenery, greenery along the streets, greenery along with historic buildings, and sacral elements.

Insufficient care and maintenance, accompanied by increasing degradation of green areas by using them for parking spaces, have led to a lack of identity of this space and decreasing of functionality.

### History and development of green open space

Evidence about the origin and development of green areas are very scarce, and until the middle of the 19th century there is not much reliable data available on Istria. Gardens in ancient times until the XIX represented the privilege of the upper class and are found around villas, or residential settlements (insight made through descriptions of villas in Brijuni). Rare medieval elements of landscape architecture were erected next to monasteries or other sacral buildings. The architectural elements of the cloister of the monastery of St. Francis in Pula from the XIII century, but the park arrangement of the ground floor is of a more recent date. The continuity of the cloister as a park area is confirmed by the list of plants of Josip Vincent Host from 1801 until 1802, in which, in addition to medicinal plants and spices, ornamental species are also listed.

With the development of the Pula district of Sv. Polycarp created the first planned city park (Naval Park, 1863), followed by parks in undeveloped areas within the city center (Monte Zaro) and parks in undeveloped areas outside the city center (Francis Joseph I Park, King Zvonimir Park, Valerija Park).

They are all decorated in the style of the late XIX century consisting exotic plants, located on islands surrounded by hiking trails of raster or free design, most often with one or more accents (rondels with a monument or fountains). Pula's city parks are mostly preserved in their original size (except for King Zvonimir Park).

Trail layouts and present greenery often change over time. In the post-war period from 1953 until 1957, numerous parks were built in Pula, mostly on war-ravaged city areas, and mostly indigenous plant and tree species were used.

Representative gardens were erected in the XIX and the first half of the 20th century with residential villas and other buildings (Lovran, Opatija, Pula, Lošinj). But in the second half of the 20th century, most of the villas were

converted into apartment buildings, and the green areas were poorly maintained. Today, these are ornamental-utilitarian gardens, which cannot be compared to the original landscaping.

In addition to public parks in the late XIX century promenades are arranged. The Šijanska forest has been arranged in Pula, since 1860 it has been owned by the Austrian navy, 1.5km from the city center. Trails, centuries-old oaks, tree-lined avenues, and a central meadow with a pavilion and a tram connection with the city have made the promenade, also known as the Imperial Forest (Kaiserwald), a favorite city picnic spot.

Treelines are a common element of spatial design in the Istria peninsula and there is almost no place without a tree-lined access road or a more important square. It is the most common type of pine (eg a century-old two-row pine line on Veli Brijun, Zlatni rt, but also newer ones such as the Pula by-pass, and enters Poreč, Rovinj, Novigrad, Labin, etc).

In the cities, there are often rows of palm trees (nettles, century-old specimens in Pula on Giardini, in Arsenalna and Kolodvorska streets, the southern entrance to Rovinj), wild chestnut (Motovun, Pula, Labin), plane trees, holm oaks, lindens, and a very interesting tree line tamaris in Novigrad.

The origin and development of the space with the dendrofloral composition of today's Campus is closely connected with the 3000th annual development and use of the same. The first data are related to the hill of St. Michael, where according to historical data there was a sacral Byzantine complex of a Benedictine monastery and a three-nave basilica with a tomb chapel from the 6th century, which was demolished in 1851 due to the construction of the fortress, which was completed in 1854.

From 1914 to 1945 it was turned several times in different uses (a warehouse and barracks; owned by the Santorio Hospital; housed homeless families who could not be



accommodated in their destroyed or damaged houses). Today, the fort is a hospital for flammable liquids, in poor condition, overgrown with weeds, neglected and inadequately upgraded in the inner courtyard. From 1896, on the hill of St. Michael was opened the civilian hospital (Ospedale Civico), which afterward become to regional in 1904 (Ospedale Provinciale di Pola).

In 1918, with the cessation of Austro-Hungarian rule in this area, the hospital was turned into Ospedale Regio Marina. After the Second World War, Ospedale di Marina was transformed into a Military Hospital, for the needs of the Yugoslav Army, but gradually also for medical needs in the service of the civilian population. In the period from 1974 to 1981, the military complex was revitalized and rebuilt.

Since 2017, the University of Juraj Dobrila has been allowed to use parts of the Naval Hospital for 50 years. There is no exact data on the manner in which and when the planting of the current state of dendroflora was performed.

### Inventory of green elements

The investigated area is located in the transition zone of the sub-Mediterranean vegetation of the oak and white-hornbeam (*Quercus-Carpinetum orientalis*) towards the eu-mediterranean zone. Due to its position on the northern edge of the Adriatic, Istria is a relatively colder part of the Croatian coast, and the precipitation system is more continental and only in southern Istria is predominantly Mediterranean, because statistically there is less rain throughout the year, so the summer drought is least pronounced compared to the rest of the Adriatic.

The consequence of such a climate is that of all the Croatian coasts, northwestern Istria naturally contains relatively few wild Mediterranean plants and significantly more continental species than anywhere else along with the Adriatic. Except in southern Istria, the hardy Mediterranean flora was partly introduced by artificial cultivation along the settlements and only to a

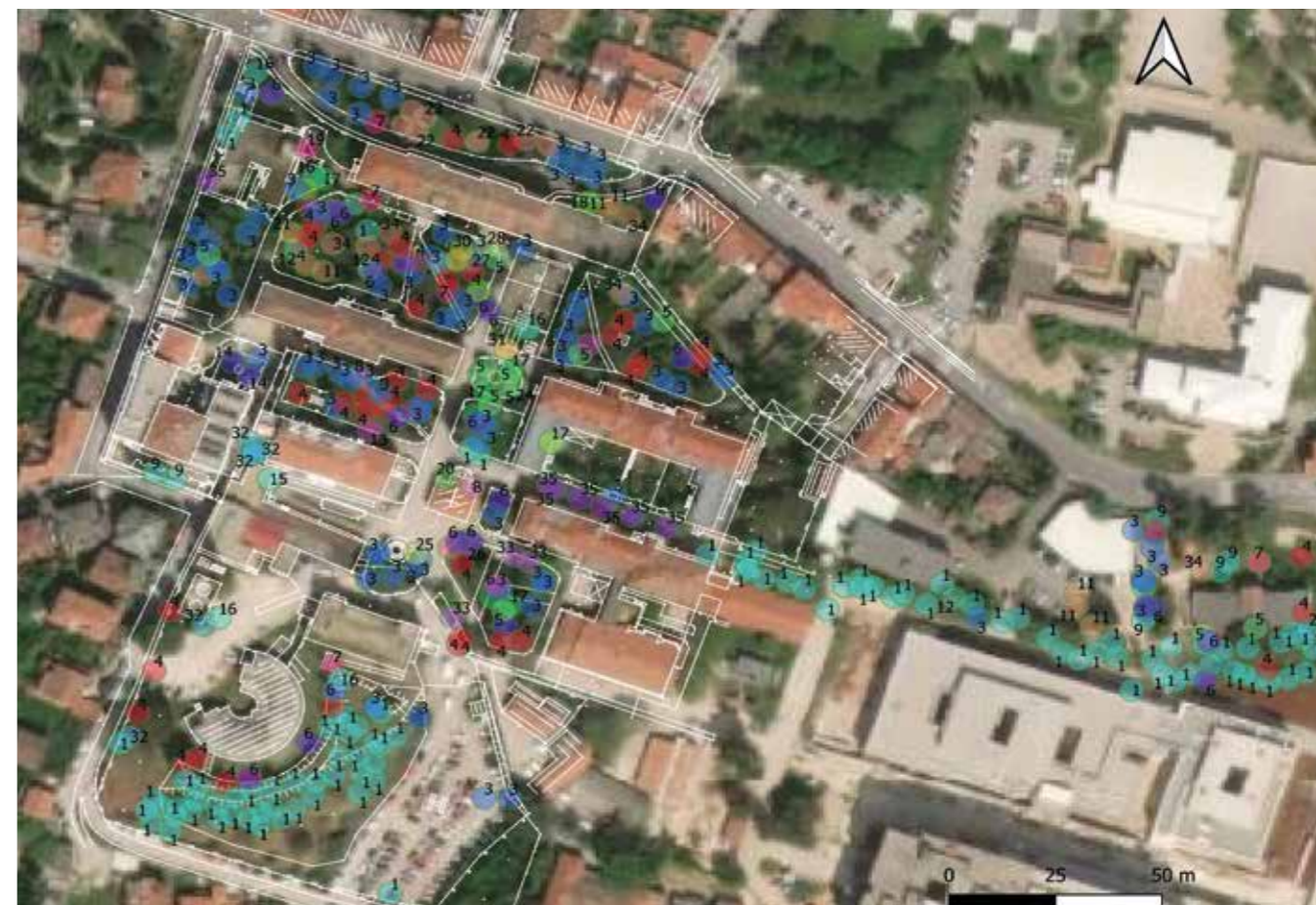
lesser extent from the original nature.

The forest cultures of the introduced vegetation are stands of the planted pine forest of Aleppo pine (*Pinus halepensis*) and Bruca pine (*Pinus brutia*). They do not represent a compact whole, but a partially forested complex, i.e. the surface of a broken complex with grassland vegetation.

During study exchange students of the University of Sarajevo Faculty of Forestry (MSc study program Landscape Architecture) made surveys and mapping of green open-spaces of Campus Pula. Students responsible for determination and mapping of dendrospecies in Campus Pula are Marija Jozinović, Kristina Kovačević, Aida Kadić, Emin Muratović and Nejra Fejzić.

The total number of the mapped individual dendro-species was 380, of which evergreens accounted for 242, deciduous for 136, and 2 unidentified species. The main character of the green open-spaces described by the autochthonous Mediterranean evergreens and introduced cedars. Thirty-five species of trees and shrubs were identified and mapped (Figure: Dendro-species inventory in Campus Pula).

Mediterranean hackberry (*Celtis australis*) is the most abundantly occurring species spontaneously spreading through open spaces, like in the very southwestern part of the campus - area of archeological site (Figure X1). Similar natural regeneration potential was also present for the evergreen oak (*Quercus ilex*), the bay laurel (*Laurus nobilis*), and some other species. Most common evergreens were cedars, pines (*Pinus halepensis*) and cypress (*Cupressus sempervirens*). Apart from the mentioned, a substantial number of species are introduced species which vastly distributed across the Adriatic coast.



Dendro-species inventory on the Pula campus  
Inventory made by: Marija Jozinović, Kristina Kovačević, Aida Kadić, Emin Muratović and Nejra Fejzić

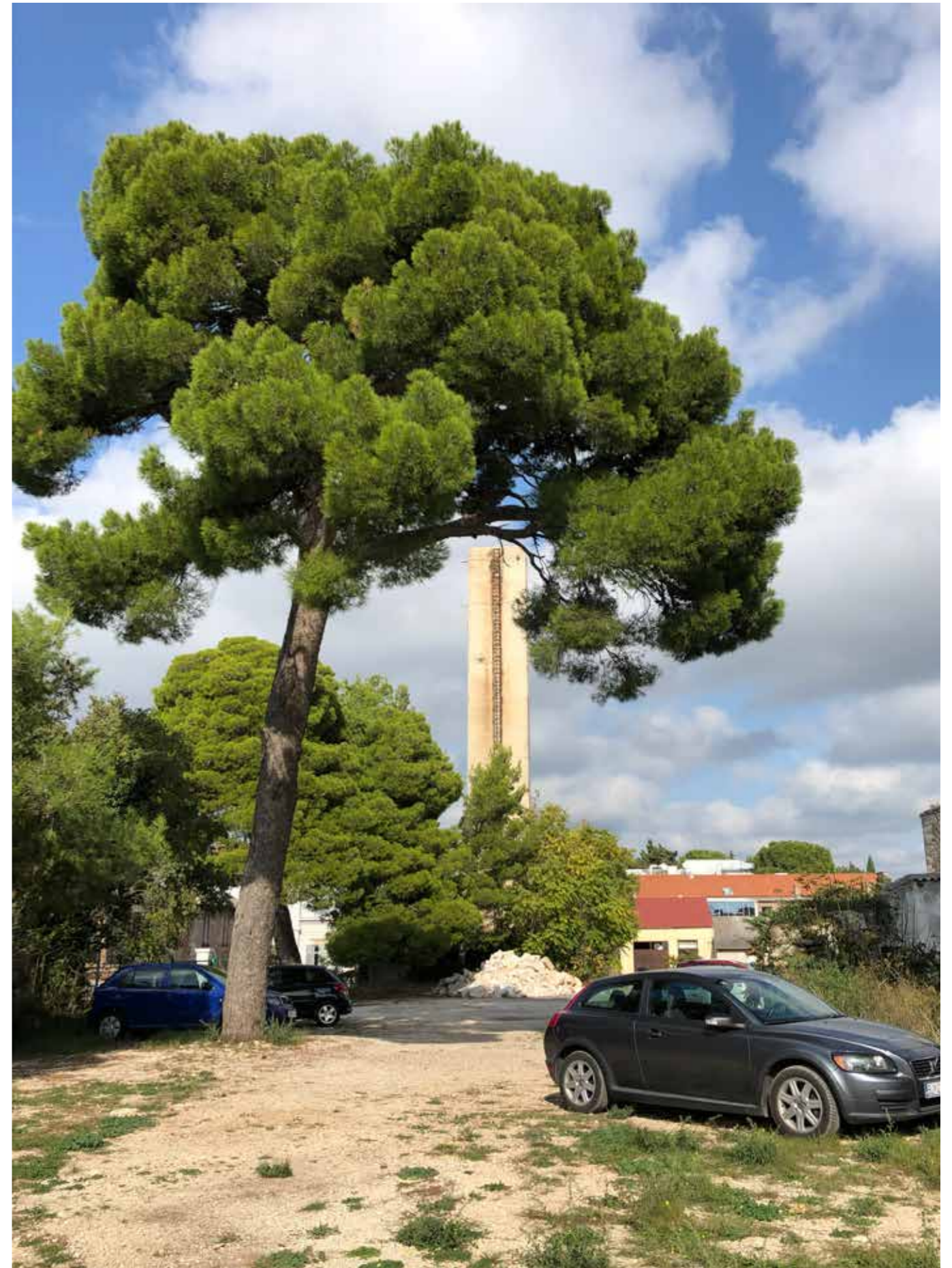
### Legend

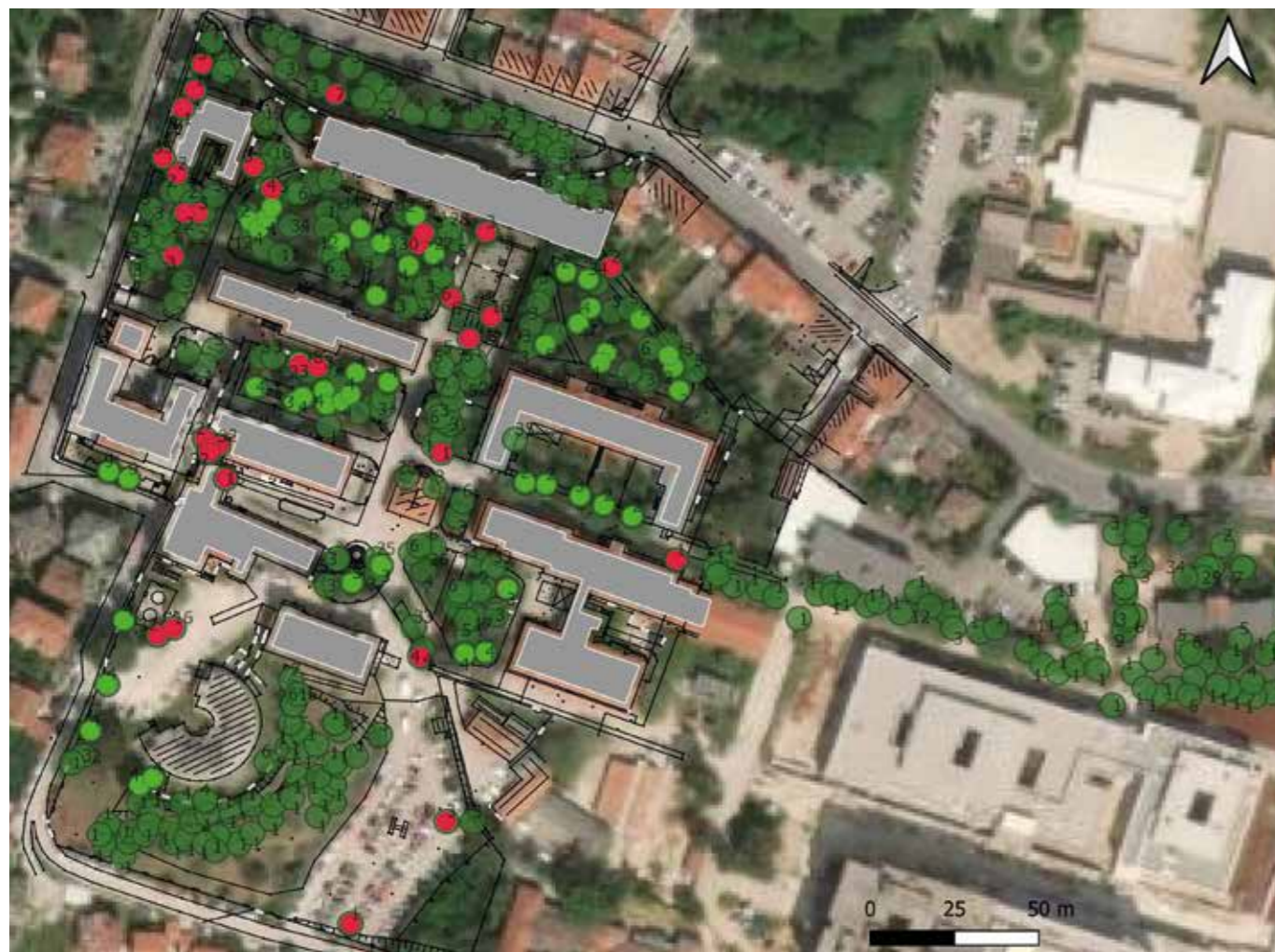
Number	Species name	Total count
1	<i>Celtis australis</i>	99
2	<i>Cedrus</i> sp.	28
3	<i>Cupressus sempervirens</i>	84
4	<i>Pinus halepensis</i>	43
5	<i>Taxus baccata</i>	12
6	<i>Laurus nobilis</i>	23
7	<i>Robinia pseudoacacia</i>	5
8	<i>Thuja occidentalis</i>	2
9	<i>Celtis australis</i>	7
10	<i>Acer pseudoplatanus</i>	1
11	<i>Abies alba</i>	8
12	<i>Prunus laurocerasus</i>	4
13	<i>Pittosporum tobira</i>	3
14	<i>Ziziphus zizyphus</i>	2
15	<i>Eriobotrya japonica</i>	1
16	<i>Ficus carica</i>	6
17	<i>Ligustrum lucidum</i>	6
18	<i>Morus alba</i>	1

Number	Species name	Total count
19	<i>Nerium oleander</i>	1
20	<i>Olea</i> sp.	1
21	<i>Philadelphus coronarius</i>	1
22	<i>Pinus nigra</i>	7
23	<i>Pinus sylvestris</i>	1
24	<i>Prunus domestica</i>	1
25	<i>Pyracantha coccinea</i>	1
26	<i>Quercus ilex</i>	2
27	<i>Spiraea</i> sp.	2
28	<i>Trachycarpus fortunei</i>	1
29	<i>Viburnum tinus</i>	1
30	<i>Yucca</i>	2
31	<i>Catalpa bignonioides</i>	1
32	<i>Ailanthus altissima</i>	7
33	<i>Aesculus hippocastanum</i>	4
34	<i>Thuja orientalis</i>	7
35	<i>Forsythia x intermedia</i>	3
36	Not identified (NI)	2
<b>Grand Total</b>		<b>380</b>



Impressive pine trees (*Pinus halepensis*) shape the campus area





Tree evaluation by students

**Legend**

- Positions of highly valuable trees
- Intermediate trees
- Trees needing interventions

**Current challenges and potentials for use**

Considering the significant value of the green open-spaces of the Campus Pula, the reduced functionality of all green areas was stated due to insufficient care and maintenance. There are approximately 20 hectares of green open-spaces in different categories of usage. Some green areas are lost primary function, the soil was lost and they were degraded like the area which is being used as parking space (Figure - Functional roles of green open spaces in Campus Pula). On the other hand, the most areas are well protected with preserved natural soils and very valuable old trees.

The general conclusion which was made by students' observations is that the general condition of the recorded woody greenery of the Pula Campus is satisfactory. Most of the recorded individuals show good vitality, but also the lack of appropriate and regular care measures. Thus, the problem of the present dry branches and some dead trees that need to be removed was stated, because they represent an immediate danger for passers-by and users of this area.

It was estimated that roughly 50 trees belonged into the category of the highly valuable trees (green colored trees; figure - treesposition). These were also trees with high esthetic value. Around 35 of them are assessed as trees needing some intervention regarding appropriate maintenance, while the rest are considered as intermediate and regular in a general fitness manner.

Neglect, degradation, and contamination by various types of waste, in certain parts of the Campus, greatly affect its current condition. Space loses on accessibility and diminishes the ambient value and functions, both in sociological, ecological, and aesthetic terms. By exploiting the potential of woody species and the gradual introduction of new adaptive species, primarily deciduous species, this situation would be significantly improved and raised to a higher aesthetic level.

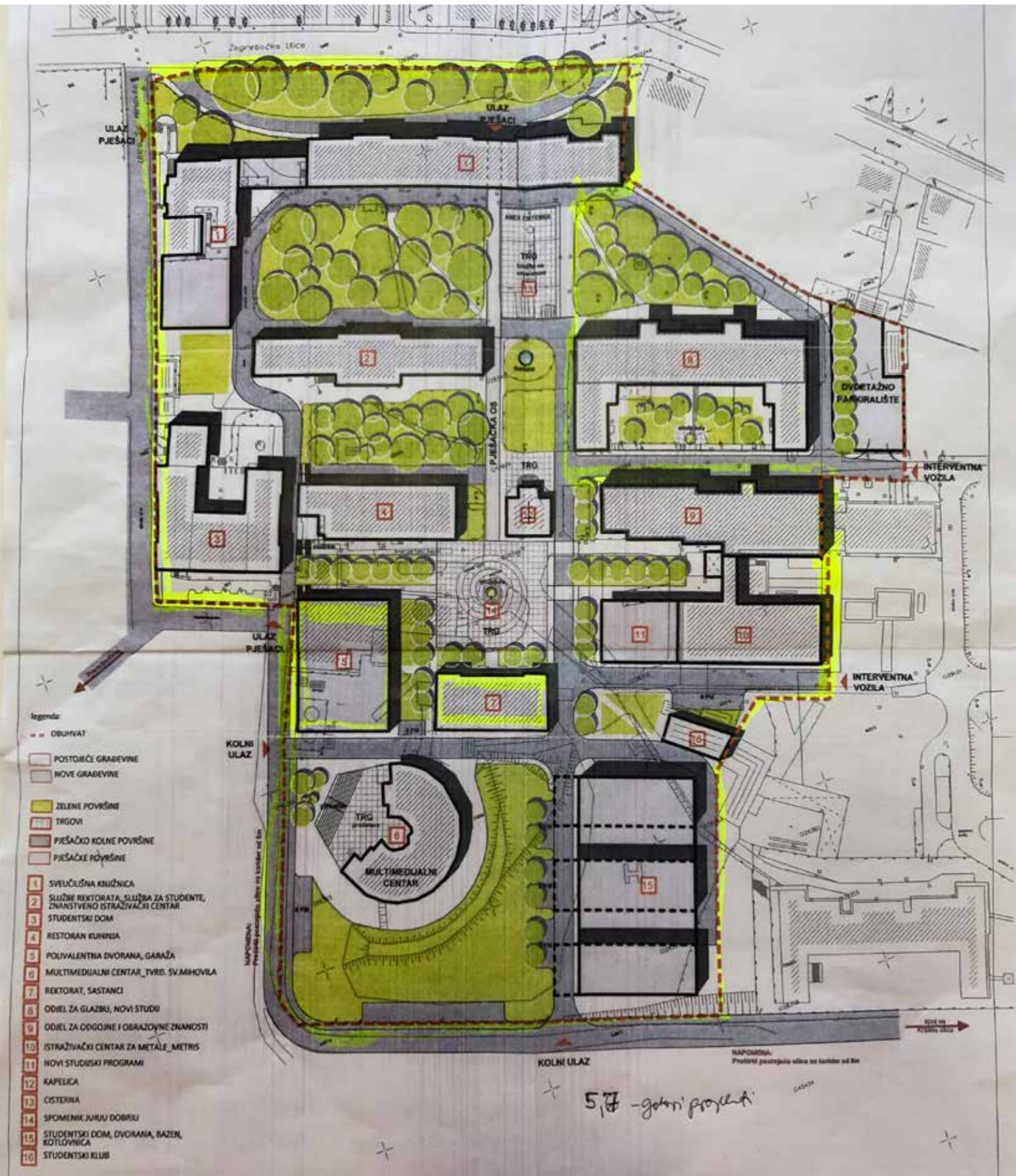
Also, by implementing appropriate methods of renovation, reconstruction, and revitalization of individual urban greenery, the observed horticultural shortcomings can be eliminated, and the possibilities of using the functions of open green spaces for a more pleasant life of residents and visitors of the Campus can be improved.

The urban infrastructure of the Campus has the possibility of connecting with the greenery in the city of Pula, thus making an urban green network. This is supported by the immediate vicinity of Pineta Park as an urban green area of a recreational character, but also the proximity of local city parks (Naval Park, Montezaro Park, Titov Park, Frane Josipa I Park). Another line connecting the urban greenery of the Campus and the greenery of Pula is of a historical character - the greenery of the forts (Fort Castel, Monsival, Casoni Vecchi, Monvidal, Monte Ghiro).



Students presenting the assessment of green spaces

# Project brief



# CAMPULA

## Sustainable Development and Design of the Coastal University Campus in Pula, Istria, Croatia

### Collaborating universities:

Juraj Dobrila University of Pula (UNIPU)  
University of Sarajevo (UNSA)  
International Burch University Sarajevo (IBU)  
Hochschule für Wirtschaft und Umwelt Nürtingen (HfWU)  
Hochschule Weihenstephan-Triesdorf (HSWT)

### Project Team



**Ivona Peternel**  
Juraj Dobrila University Pula  
International Affairs  
and Projects

## Assignment

### Introduction

The aim of the project was the sustainable development and (climate) resilient design of the campus of the Juraj Dobrila University in Pula founded at the beginning of the 21st century. With the foundation of the university on 29 September 2006, Pula became the youngest university-city in Croatia and today has about 3000 students. Currently, the space requirement of approx. 12.600 m<sup>2</sup> on the site of a former hospital is being developed. Priority of the study project was given to the systematic creation of high-quality design and ecological spatial conditions for students and members of the university. In the foreground were the design of the open spaces, their integration into the urban pattern of the city of Pula and their connection to the coast. In cooperation with the participating faculties, ideas were to be developed for the opening, improved permeability and perceptibility of the Adriatic coastline, which is by now hardly accessible. The inclusive design of urban spaces and activation of the potentials of 'green and blue infrastructure' had to be worked out as added value and contribute to a sustainable model of the 'Adriatic University Pula'.

### Project

The following outcomes were expected:

1. Concept for the urban integration of the campus and its connection in particular to the coast on the basis of a spatial analysis
2. Ideas and proposals for the development of Pula's shoreline in the area of the city centre as a public space
3. Open space/landscape design for the campus (overall design/master plan, details, sections etc.)

The project work was structured in two different phases, the international kick-off workshop together with Croatian and Bosnian students in Pula in October

2019 and the elaboration phase/studio work at the HfWU afterwards.

Involved staff members:

- Ingrid Schegk, Hochschule Weihenstephan-Triesdorf, IMLA
- Sanela Klaric, International Burch University Sarajevo
- Emira Hukić and Subhija Hadžić, University of Sarajevo
- Ivona Peternel, Kristina Afrić Rakitovac, University of Pula
- Ludwig Schegk, Hochschule für Wirtschaft und Umwelt Nürtingen, IMLA

Involved students:

- IMLA programme: 14
- University of Pula: 10
- University of Sarajevo: 7

### Project Objectives

This project involved international staff and students with backgrounds in economics, architecture, landscape architecture and urban planning.

The objective was to develop a comprehensive and multi-layered understanding of the urban context with a specific focus on the character and potential of the open spaces. Open space is here understood as any unbuilt area and includes for example streetscapes, squares and gardens and also wastelands, the river embankment and the coastline. This knowledge had to be developed and shared by means of a mixed methods approach. On that basis, students had to come up with at least two types of outputs:

1. Ideas for open space transformation that take the character and the current use patterns of the area into account.
2. A vision for the development of an open space system linking the area to the wider context of Pula's urban landscapes, green infrastructure and Pula's coast line. Such structure should provide flexible guidance for an urban development.

## Project location



City Center of Pula with location of the university campus  
Source: ESRI, DigitalGlobe et al.



The campus site  
Source: ESRI, DigitalGlobe et al.

## Campus area



Roof-top view of the campus



Pictures above: the current state of the Juraj Dobrila University Pula Campus

# Workshop on site

## Process of the workshop

### Phase 1: Site surveys

This phase was realized prior to the workshop phase, between 7-17 October 2019. All vegetation had to be valorised and mapped.

Students from the Faculty of Forestry of the University of Sarajevo described and categorized the green areas on the campus.

### Phase 2: Get inspired

The workshop started with a creative analysis. During the first two days the international teams explored the site and its urban context, discussed first ideas and presented those in the form of a short video and first sketches.

Deliverables: video clips of max. 5 minutes, first sketches of ideas, additional media of your own choice. Presentation time: 5 minutes + 5 minutes discussion.

### Phase 3: Build a strategy and a vision

Based on the first ideas the teams deepened their analysis using a methodical mix of their choice.

A variety of possible analysis approaches was given to the students as a kind of guideline and in order to provide directions/inspirations of how additional knowledge on the area could be gathered.

This process was ongoing and continuously informed/reflected the design process and the outcomes. On that basis, strategic objectives had to be defined and translated into a first concept.

Groups continued their site observations and deepened their knowledge of the area. It was recommended to include some field testing, i.e. taking ideas out and

talk to people about them. Spatial interventions had to be refined and specified. Possible alternative future scenarios had to be visualized.

Students had to think about a process model: Who needs to be involved and how?

The multi-dimensional benefits of the students' design for the local society, the environment and the economy had to be illustrated.

## Deliverables of the workshop

PPT presentation with ca. 10 slides:

A refined/extended synthesis of the students' analysis findings, their strategy and concept (the working scale had to be defined together with the supervisors, depending on the type of intervention), visualisations, models.

### Mood Board

All participants had to provide elements for a joint mood board, a type of collage which could comprise sketches, pictures, texts, poems, elements... whatever students considered relevant for depicting the genius loci of the place.

### Analysis approaches

Depending on the type of ideas generated during the first days of the workshop the teams were invited to step deeper into understanding the territory in order to transform their ideas into an overall strategy and a design concept. The following approaches had been compiled here to give inspiration for gathering further knowledge about the campus and its context:

- 1.Spatial structure of the urban context, coastal landscape
- 2.Spatial patterns and characteristic structures of the urban space
- 3.Movement, transport and walkability, accessibility
- 4.Mental mapping and the user

perspective

5.Historical layers and layering of the landscape:

6.Sacred spaces and landscape symbols

7.Green-blue infrastructure and urban ecology

8.Site inventory of the campus area

9....further topics like soundscape etc.

## Results of the workshop

The final presentation (.ppt or others) had to include the following outcomes:

- Summary of the results of the (spatial) analysis, evaluation, conflicts and potentials (text, scheme, diagram, sketches, video clips etc. ...)
- Concept for the connection of the campus to the coast (conceptual schemes, diagrams, one representative transect/section)
- Ideas and proposals for the development of Pula's shoreline (conceptual sketches)
- Ideas for the implementation/realisation of these proposals (circular economy approaches, process/business model, time line)
- First ideas for the open space design of the campus (sketches)

# Student projects



Students in discussion with a representative of the Pula Urban Planning Department



# NEW WAVE



Anisa Glumčević  
Bosnia & Herzegovina



Nayan Jee  
India



Azra Haračić  
Bosnia & Herzegovina



Haris Pezić  
Bosnia & Herzegovina

## Project Description

The site analysis was focused on investigating the land use proportions, with the purpose of best assessing the needed additions. Another factor was the pedestrian and vehicular street network, which helped deriving the optimal paths along the cityscape and allowing for optimal placement of the contents.

Another way of information gathering were citizen surveys which guided our design in terms of providing functions that the users identified as needed. This project had three types of interventions: on a campus-scale, city-scale and the waterfront.

## Urban Corridors

The concept of urban corridors was derived through our on-site analysis using methods of strollology or promenadology – a method in the field of aesthetics and cultural studies whose aim is raising awareness of the conditions of perception of the environment and enhancement of environmental perception itself.

The routes were chosen based on the sights encountered while threading the way and selecting the points along to best represent the theme of a selected corridor. The term inspired by surrounding elevations of the routes that subtly guide and direct the user further along the sequence. The motivation behind the concept was to provide alternative routes to existing ones being used daily by the citizens.

Those corridors were: shoreline corridor, following the contours of the existing promenade along the shore; the cultural core corridor, going from the university campus towards the gates of the old town, making a trip all around the old core and proceeding towards the colosseum, with an ending at a pier on the waterfront; the green corridor, which was the most contentful one, starting from the campus and going through all the streets that we recognized as the richest with green elements both in the walking plane or in the elevation. On the green corridor,

several acupuncture interventions were made, to strengthen the argument of a green corridor.

## Campus Juraj Dobrila University

The existing site plan was first updated to one that hoses two new student dorm pavilions, proposed previously by a local architect. Concept wise, having in mind the contoured relief of Pula and its prominent topography, we decided to isolate the isohypses on the site and use them as guidelines for forming new paths across the site.

We first analysed all the accesses to the site and the nodes/entrances within, then derived the pathways with consideration to previous user trajectories. New seating following the same organic geometry was indicated, as well as different outdoor functions in courtyards among the buildings.

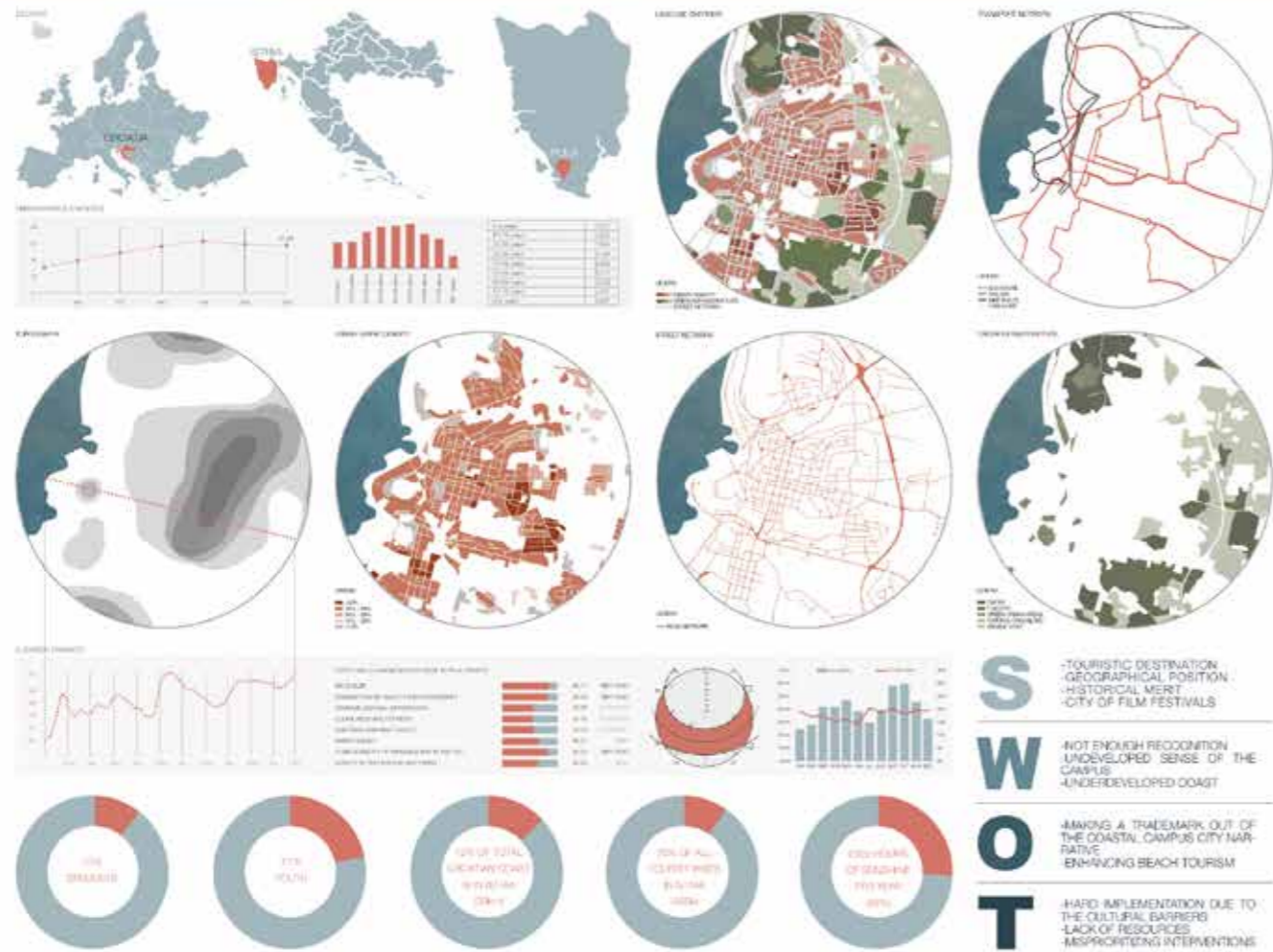
The focal point of the new design would be the introduced outdoor theatre seating on the site of the St. Michel fortress, which – with the motive of amphitheatres in Pula and a film festival city reputation – would make a signature new location that would give notice to the campus and the cities values.

## Waterfront Campus Extension

Since we wanted to break the stereotype and misconception of a campus being an area constrained within site boundaries, we formed an extension of the aforementioned corridors into an outdoor campus area, a branching pier, with different functions of its open area – overlooking viewing platforms, stepped seating, wide plazas, as well as a pier descending into the sea.

The overlooking platforms are rising with deep-seated stairs, again imitating the topographic rhythm of the city. The three-branched pier's meaning is multifold – it is a culmination of the urban corridors, the extension of the campus and the first step to the animation and gaining recognition of the otherwise underdeveloped shoreline.

# SITE ANALYSIS - CITY OF PULA



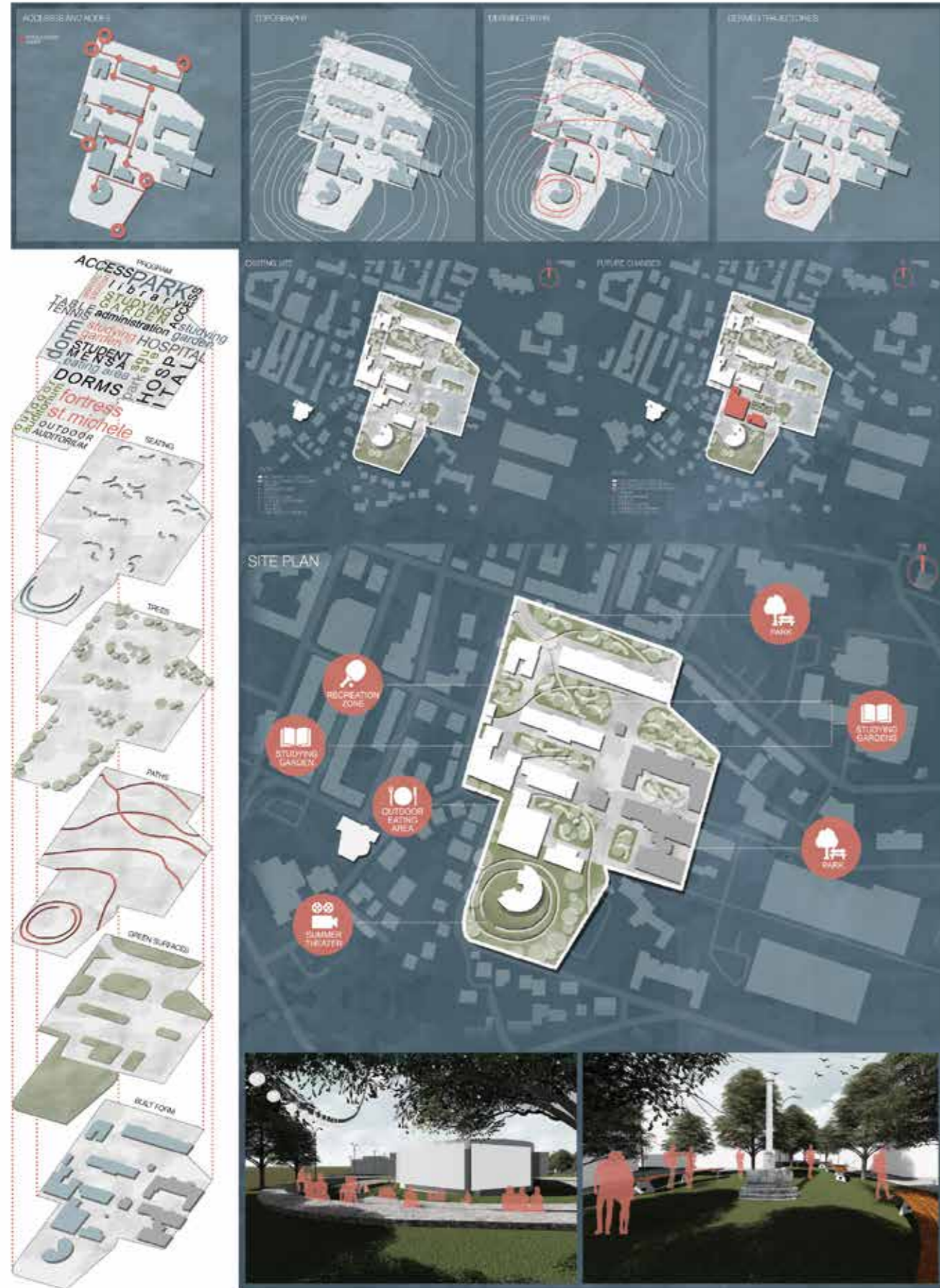
MAIN PROJECT II - CAMPULA // WINTER SEMESTER 2019/2020 // ANISA GLUMCEVIC // AZRA HARACIC // HARIS PEZIC // NAYAN JEE

# URBAN CORRIDORS



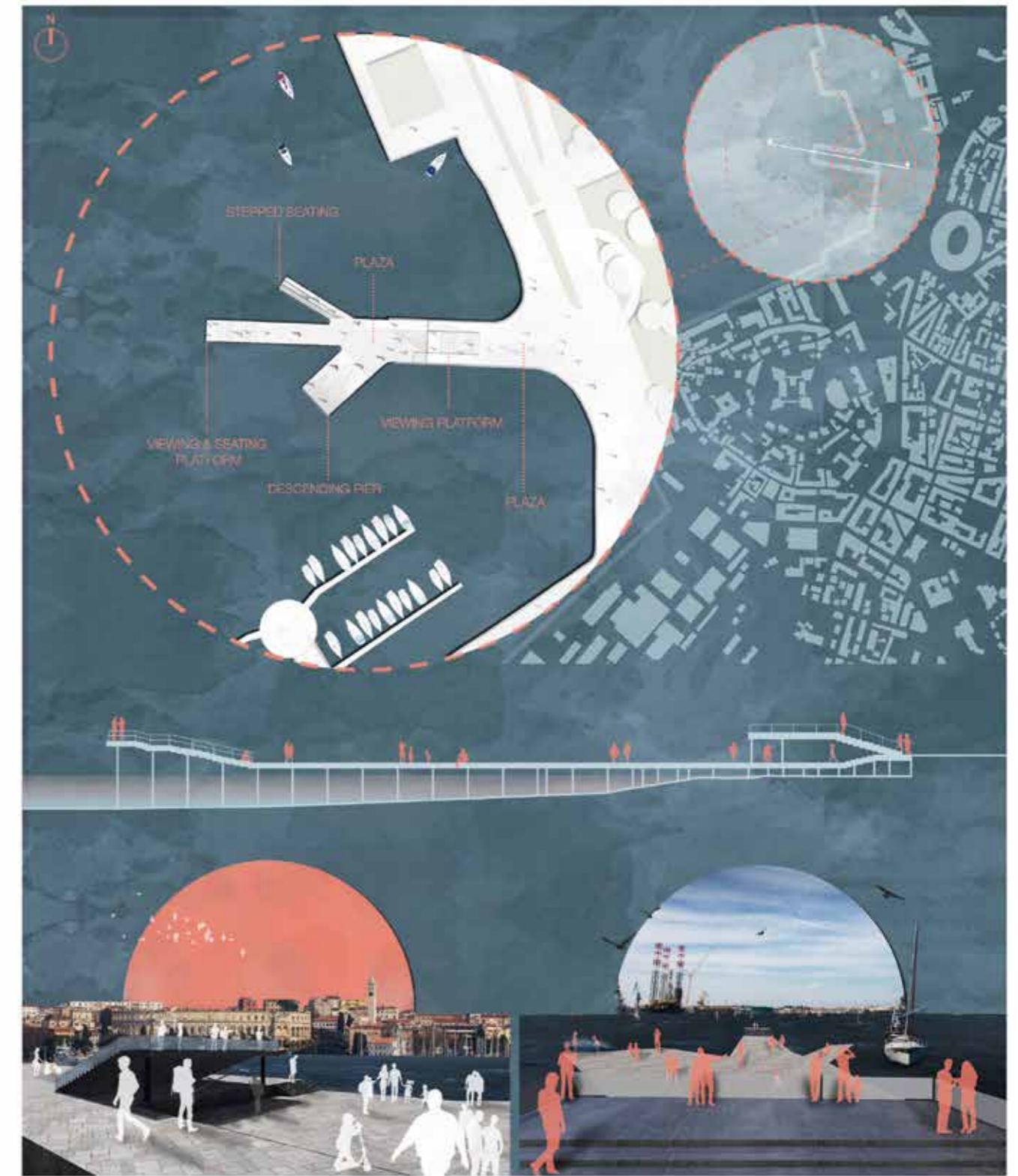
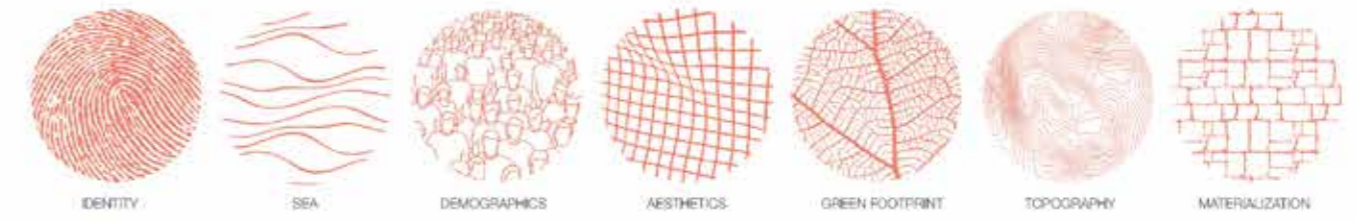
MAIN PROJECT II - CAMPULA // WINTER SEMESTER 2019/2020 // ANISA GLUMCEVIC // AZRA HARACIC // HARIS PEZIC // NAYAN JEE

# JURAJ DOBRILA UNIVERSITY CAMPUS REDESIGN



MAIN PROJECT II - CAMPULA // WINTER SEMESTER 2019/2020 // ANISA GLUMCEVIC // AZRA HARACIC // HARIS PEZIC // NAYAN JEE

# WATERFRONT CAMPUS EXTENSION - PIER DESIGN



MAIN PROJECT II - CAMPULA // WINTER SEMESTER 2019/2020 // ANISA GLUMCEVIC // AZRA HARACIC // HARIS PEZIC // NAYAN JEE

# L. A. G.



## Project Description

Pula is a coastal and historical city which has around 3000 years of history. The city is located in the west of Croatia and is the 8th largest city in the country. The city is well known as a touristic and economy (Shipyard) place. Pula with the fantastic Bay welcomes the ships and also tourists from all around the world. The city is 2°C in the coldest days and 28°C in the warmest month in the year. Average of sunshine is 2200 hours per year. (weatherpark) (wikipedia) (pulainfo)

Pula is welcoming 2500 students from all around Croatia in different faculty. University of Pula is developing the campus on the old hospital site which has around 12,600 square meter field. The site is included the old and heritage buildings, Monuments, Mensa and open green spaces with lots of valuable trees and vegetation. The future plan of this site includes the new Dormitory for students and some building for the faculties.

There are seven hills in the city of Pula, (wikipedia) and the new campus area is located exactly on one of the hills. There is around 20-meter height difference from the lowest and highest point of the site, which created a challenge for design in this field.

To start the project, we needed to collect the data to know the city more, observe the site to get inspiration, and interview with different stakeholders to get to know the needs. The project vision is a sustainable campus area and well connected with the city of Pula. Our concept came from overall view of the city, Pula has many different potentials, such as heritage architecture, old building and beautiful nature.

Defining all the potential places, we found many places around campus area and city center, like Fortresses, castle, heritage architecture (temple, gate, and etc. Open green spaces, which has great potential for recreation development. Connecting these places to each other, can help the places that are invisible but valuable, to be active and visible, and adding needed facilities

can help the city and citizen to reuse and revive the places. We do believe, the identity of the city comes from different stages that city has, the stages can be squares, architectural buildings, market places, historical monuments, parks or any functions that the place has, and plays in the city.

We want to enlighten these stages in the city of Pula, the stages which was forgotten. Bringing the identity of the places back and adding some new functions can invite citizens as well as tourists to visit and enjoy these places. For bringing sustainability to the campus and the city, we used solar panels, as we realized that city has approx. 2200 hours of sunshine per year. Using the e-Bike and E-trons in the city except using cars, can give the new transportation scheme to Pula. Charging the E-devices with the solar powers can help the city to economize and reduce the energy uses.

Designing the safe and clear bike lanes on the street, invite and encourage the people to use bike. Designing the new building for study, faculties and also multistore car parking place to remove the parking places on the street and make is safe for pedestrians and cyclists, and designing the plaza and open/active spaces in the campus could solve the student's problems.

Connecting the green spaces and adding some more green lines, parks and corridors can help to preserving the existing trees/green spaces as well as connecting the people to the nature and helping the environment. Making some opening the shoreline, which is occupied by the shipyard could help the city center to touch the sea and give the people the sea view and make the place more active. It can also help to replace these ideas and reuse the shipyard place that the company is already bankrupted. (Total Croatia News)

Through all of these, we are gaining these 5 factors: Visibility, Mobility, Tourism and Economy, Environment, Socializing. Results of these factors is the sustainability in the city of Pula. Results of these factors is the sustainability in the city of Pula.

# 01 ANALYSIS

SUSTAINABLE DEVELOPMENT OF COASTAL AREA & UNIVERSITY CAMPUS IN PULA



## GENERAL INFORMATION

8th Largest City in Croatia  
51.65 km<sup>2</sup> of surface  
Population 57.000 (2011)

Students 2500  
Faculty of Economics and Tourism, Philosophy, Interdisciplinary Italian and Cultural Studies, Informatics, Musical Academy, Nature and Health Studies

Average altitude of approx. 30 m (above sea level)

Seven hills (Kaštel, Zoro, Arena, Sv. Martin, Opatija Sv. Mihovila, Mondipola and Pra Grande)

**Temperature**  
Average low: 2.0 °C – Average high: 28 °C

**Wind**  
from October to April: Average speed around 10 km/h  
from April to October: Average speed around 7 km/h  
Windiest month is February, with 11 km/h

**Precipitation**  
Most rainfall is in December and July is driest month  
Average amount of annual precipitation is 871mm



CROATIA

## HISTORY

Illyrian tribe of Histri    ROMAN PERIOD    VENETIAN RULE    AUSTRO HUNGARIAN    YUGOSLAVIA    PULA, CROATIA

10 Century BC    27 BC - 476 AD    1250 - 1797 AD    1848 - WWI    WWII - 1991    1991 - current



## METHOD

ON SITE OBSERVATION	REVIEW STATISTICAL DATA	SURVEY	ANALYSE MAP (DEVELOPMENT)	REVIEW HISTORY

## SURVEY FINDINGS & COCREATION

<b>Interview</b> 10 students of University 2 Professors 8 Local Citizen	<b>Pain</b> City: Visual barrier, Bike paths, Car parking, Gathering place University Campus: supermarket, Sport halls, gym (basketball, handball), Place for studying Potentials: Historical buildings, Texture of the city, Future plan for new dormitory	<b>Solutions</b> Multifunctionality Green/active open spaces Car free campus E Bike	<b>Gain</b> VISIBILITY SOCIALIZING LOCAL ECONOMY MOBILITY ENVIRONMENT
--	--	---	--

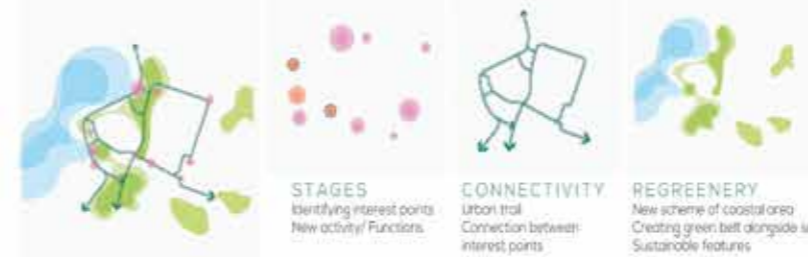
## SITE ANALYSIS



S. Amir H. Shahrestani (Student ID: 119492)  
Nafiz Rahat (Student ID: 119568)

# 02 SPATIAL CONCEPT

ENLIGHTEN THE CITY STAGES



Our concept came from overall view of the city, Pula has many different potentials, such as heritage architecture, old building and beautiful nature. Defining the of potential places, we found many places around campus area and city center, like Fortresses, castle, heritage architecture (temple, gate, and etc). Open green spaces, which has great potential for recreation development. Connecting these places to each other, can help the city and citizen to reuse and revive the places. We do believe, the identity of the city comes from different stages that city has, the stages can be squares, architectural buildings, market places, historical monuments, parks or any functions that the place has, and plays in the city. We want to enlighten these stages in the city of Pula, the stages which was forgotten. Bringing the identity of the places back and adding some new functions can invite citizens as well as tourists to visit and enjoy these places.

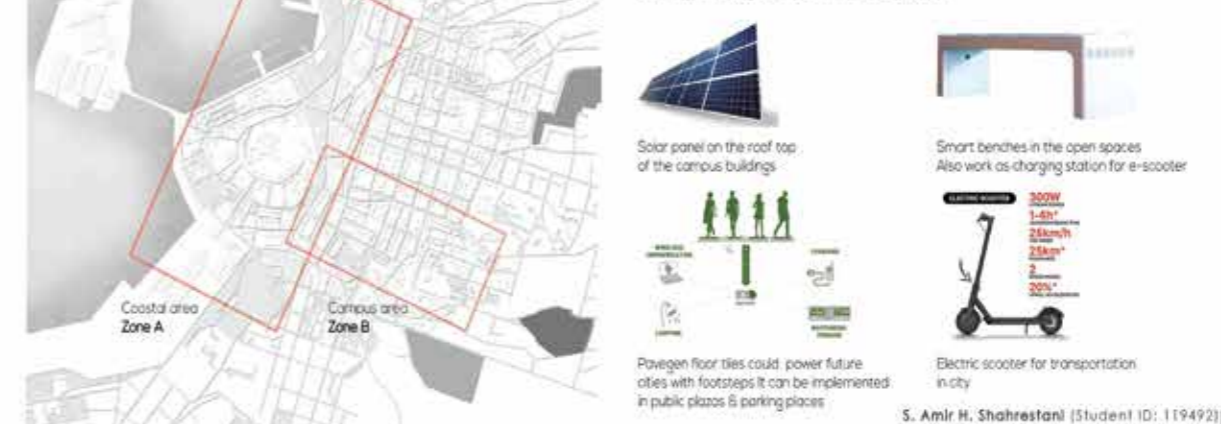
## CONCEPT MAP



LEGENDS

Existing trail	Road	Forests	Point of Interest Heritage	Proposed Point of Interest
Proposed new trail	Open/ public Green spaces	Agriculture	Point of Interest (Existing)	Proposed bike path on the road

## NEW TRANSPORTATION & RENEWABLE ENERGY



S. Amir H. Shahrestani (Student ID: 119492)  
Nafiz Rahat (Student ID: 119568)

# 03 LANDSCAPE DESIGN

CITY & COASTAL AREA

## ZONE A - COASTAL AREA



SC 1:2000 COASTAL AREA MAP



FRONT OF YOUTH CLUB



TRAMFOR INDUSTRY TO RECREATIONAL

There is an unnecessary car parking place close to the Pula Amphitheater, which is blocking the connection between the stadium and sea.

Designing the green corridor in the part of the car parking to reach the sea brings the good scenery of this area. Making some opening the shoreline, which is occupied by the shipyard could help the city center to touch the sea and give the people the sea view and make the place more active. It can also help to replace these ideas and reuse the shipyard place that the company is already bankrupted. (Total Croatia News).

Connecting the green spaces and adding some more green lines, parks and corridors can help to preserving the existing trees/green spaces as well as connecting the people to the nature and helping the environment. Designing the safe and clear bike lanes on the street, invite and encourage the people to use bike.

The industry area transformed into an amazing area for the youth and students as well as the tourists. The youth club, urban sand-beach, and skateboard playground are inviting the people to come and enjoy their time. Touching the water from this point of the city was not imaginable before.

S. Amir H. Shahrestani (Student ID: 119492)  
Nafiz Rahat (Student ID: 119568)

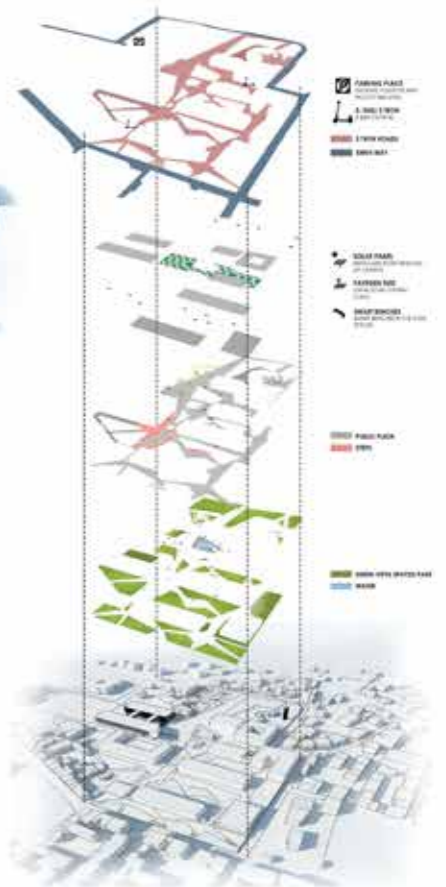
# LANDSCAPE DESIGN 04



CONCEPT MAP (CONNECTING CAMPUS TO THE CITY MARKET PLACE, GOLDEN GATE) SC 1:2000



CONCEPT DESIGN UNIVERSITY CAMPUS OF PULA SC 1:500



FUNCTIONAL DIAGRAMS



SECTION THROUGH CAMPUS



There are seven hills in the city of Pula, (wikipedia) and the new campus area is located exactly on one of the hills. This is around 20-meter height difference from the lowest and highest point of the site, which created a challenge for designing in this field. To starting the project, we needed to collecting the data to know the city more, observing the site to get inspiration, and interview with different stakeholders to get to know the needs. The project vision is sustainable campus area and well connected with the city of Pula. Designing the new building for study, faculties and also multistore car parking place to remove the parking places on the street and make it safe for pedestrians and cyclists, and designing the plaza and open/active spaces in the campus could solve the student's problems. Connecting the green spaces and adding some more green lines, parks and corridors can help to preserving the existing trees/green spaces as well as connecting the people to the nature and helping the environment.

S. Amir H. Shahrestani (Student ID: 119492)  
Nafiz Rahat (Student ID: 119568)

# PROKRITI MAASTIKA



Gökseñ Ezgi Boz  
Turkey



Majeda Khatun  
Bangladesh



Darja Korjukina  
Estonia



Rahnuma Ahmad Tahiti  
Bangladesh

## Reactivating Historical Tram Lines

Reactivating Historical Tram Lines. A key element of the city's attractiveness is that it allows its residents to move around the city safely and efficiently. City buses connect the town center with all parts of the city (34 lines), but these facilities are not enough.

A potential tram loop around the city center, combined with further expansion of the network, will allow for fast, reliable and high capacity transportation to the city center on appropriate radial routes to provide public transportation. Pula had an electric tram system in the early 20th century but it was dismantled after the First World war.

First of all, we want to reactivate these deserted railroad tracks (near the harbor) and create a new connection between the shoreline and the city center which can be an attractive travel route for tourists. Secondly, there will be another tramline from the city center to the University of Pula. This new tram connection will help in creating a strong connection between the student campus and the historical city.

## Parking Space

There are some parking lots in the city center along the shore line. To increase exposure to the seashore and provide greater visibility to existing ruins, these parking areas will be demolished to create a green corridor along the seashore.

In their place, two new multi-story parking lots will be proposed. One will be close to the shipyard plaza (3rd design area) and the other in the city center near the tourist attraction zones.

## Proposing Bike Paths

Unfortunately, bicycle culture is not developed in Pula. With a lack of parking spots, people are forced to park their cars on the street in the way of

potential bikers. With the development of bike lanes between the old city, new city, and designing areas, as well as bike racks for locking up their bikes, Pula would become a more sustainable and healthy city.

## Entrance of the City

This area in the northern part of Pula is one of the entrances to the city. It is close to the Colosseum and the historical train station is right next to the harbor.

- Design Strategies:  
One of the considerations is transformation of the shoreline. As the proposed site is a Natura 2000 site (Nature Protection area), a light structure Pier Dock has been proposed to minimize threats to local fauna, protect fish habitats and maintain the local ecosystems.

The harbor area suffers from a lack of adequate public amenity. A sailing club is proposed to promote canoeing activities that is one of the most popular seaside activities during summer. The club is to be used by local citizens and students from local universities and schools. Entrance will be free for students.

## Creative District

The harbor front is a historical, under protected area, connected to the city center. We have developed the urban design framework and designed the public realm precinct to include reinvigorated parklands, plazas and event spaces with better pedestrian, cycle and public transport connections. We have focused on the 2 harbor areas (2 and 3 zooming area), which now has a weak connection to the city center in terms of accessibility. Our design strategy includes:

- Renovation of historical buildings located in the harbor area and proposal of functions such as museums in the already existing shipyard buildings to integrate the public landscape and historical city features.

- Reactivation of the tram line to connect the shoreline and the city center.
- Enrichment of the individual identities of the harbor by connecting them with the public realm.
- Creation of a new cultural district as an exhibition area where Pula's unique activities such as film exhibition, book fair, wine festivals etc can take place.

These new activities would also create economic opportunities for the local people. We believe that a combination of parks and the new proposed functions in the shore line which has years of history, can play a vital role in the new plan to dramatically transform Pula's port area.

### New city recreational area

There is not enough greenery in the city center. There is the widely used protected forest park Šijana Wood, but it is quite far from the city center.

With increasing urban expansion in the core areas of the city, green areas are gradually decreasing. As such, a new green recreational area is proposed in the southern part of the city close to the city center which can serve as a green lung for the surrounding neighborhoods.

### Forest

The forest will help in improving biodiversity of the city. There is already a forest in the northern side of the university campus. To create a connection between these two green areas, a bike line has been proposed from the campus to the forest. This access to the recreational area will also provide a unique green experience for the students of the university.

### Concept "Interface"

"University as a transition 'in between old and new':

The campus is located in the prime

location of the city which is within walking distance from the historical heritage part of the city. The University of Pula stands as one of the prime buildings throughout the historical developments of Pula.

To the eastern side is the Historical Core and to the western side City Pula is developing. The campus is located between this old and new juxtaposition. Also in the western and southern side there are more green areas so there is the potential to connect the campus to these green urban areas.

The concept 'Interface' comes from this juxtaposition and therefore the objective is to create a vibrant urban campus for students and the people of the city. The intention was to create porous edges and make the edges of the campus transparent, visible instead of being closed so it can work as a more public and vibrant educational campus which will invite more people inside.

This experience will transit through green, open spaces/ plaza and the purpose is to offer vibrant academic atmosphere among students and faculties.

### General Information About The University/Campus

The university was founded in 2006 and has eleven constituents. As a young university it is still growing and has many potential to expand and open new faculty and serve the citizens.

The constituents are:

- Academy of Music in Pula Department of Engineering
- Department of Natural and Health Sciences
- Faculty of Economics and Tourism "Dr. Mijo Mirković" Faculty of Educational Sciences
- Faculty of Humanities Faculty of Informatics
- Faculty of Interdisciplinary, Italian and Cultural Studies Institute for Science and Technology VISIO
- Student Centre Pula
- University Library

### Problems

- The old campus site is not fully utilized. There are some abandoned buildings, which can be renovated and can be used for new facilities.
- The landscape/ open spaces inside the old campus are not maintained or designed as for institutional purposes. It is not user friendly.
- According to students' demands there are some lack of facilities. As per our survey during the workshop some of the issues were highlighted by the students.
- Due to lack of parking, cars are parked everywhere, within campus areas, outside campus areas on street. It causes disturbance with the pedestrian access.

### Potential

- Location of the university. It is in between the old and new part of the city also close to the park and other public facilities.
- Within the campus, open spaces have many large old trees and green areas. It is possible to develop as a vibrant outdoor space focusing student demands.
- One very interesting archeological site is within university campus, where university has already done research and studies. Therefore there is the potential of opening a new department related to archeology/ heritage related studies as the demand of related studies are increasing internationally.

### Proposed Functions

- Cultural center  
It is a significant historic building. University has a proposal for renovating this building. In the proposed design, the proposed function of this building is, to use it as a cultural center where different types of activities will take place, like film festivals, arts exhibitions, book fair, etc.

- Café

A small cafe/ coffee bar has been proposed as per student's demand, where they can have some break and which would be also convenient for them.

- Welcoming plazas  
Different type of tree courts and welcoming plazas have been proposed in the already existing green areas between the university buildings. The students want different types of spaces as a part of open gardens where they can gather and enjoy different activities.

### New proposed buildings

- Library  
This is a growing university where it has high potential to open new departments and extend its facilities. The heart of the university is its library facilities where not only students but also citizens may come for resources and its facilities. And it is also students' requirement that they want an extensive library with outdoor reading areas or many different types of reading areas and discussion spaces. As per requirement a new building is proposed where it can facilitate all the services.

- Museum and archeology department  
As this university already has an archeological site within the campus and has objects which they may exhibit, there is the scope of exhibiting the research which has already done among its archeological site and show the process. It will be a significant step for the university and can draw attention internationally. Having considered this, a new department related to archeological or historical studies has been proposed which has high demand internationally.

- Extension of institutional and classroom facilities  
Some buildings are proposed to be renovated for further classroom and institutional facilities, as the number of students are increasing and the university will need these facilities in the long run.



## Connections

- Connections with the city  
The campus, in its proposed design, offers better transition experience for the citizens. Some connections are offered throughout, and the connections are either through green areas or within vibrant campus areas. The pedestrian around the campus area is extended wherever it's been possible in the proposed design.

- Connection old / new campus area  
The new and old campus is located close distance. To connect these two areas, pedestrian plazas are offered. Same type of materials will be used both for the road and the walkway so the road merges with the plaza and creates the ambience for a more public scale and widened up plaza, with better space quality.

- Connection with hospital part  
As the old campus was a part of a hospital area, and some parts are still used by hospital authority, the campus is connected with the hospital through landscape, with accesses and open plazas.

- Connection with the forest  
As the forest/ green area is extended in the proposed design, the campus now, offers better connection with the city in the eastern side through forest/ green area.

## Car Parking

- Car-free campus ideology  
A car-free campus will provide better interaction areas, flexible pedestrian movement. The whole campus will become a 'garden for learners' where they can move freely within green and without vehicular hazards. It also has better psychological and environmental impacts.

- Parking solutions  
Multi-storied parking is proposed close to the university. A Multi Storey parking building made of steel structure can be built which will reduce the amount of space which is currently used because of surface parking.

- Forest expansion  
As the existing parking area is proposed as a multi-storey parking building, it provides the scope for expanding existing green area close to the parking area. The expansion of the park/forest area will have better environmental impact.

## Respecting Topography

The topography of the site is considered in the new proposed design of the campus. We have considered the topography, contour lines, not as an obstacle to the site, rather using it for vista, viewpoints, and for distribution of functions.

# ANALYSIS

## CROATIA BACKGROUND

**Croatia** is a country of 10 million people and a beautiful coast. It is located at the intersection of Eastern (Romanian and Serbian) and Western (Slovenian) zones. Croatia is located on the northeast coast of the Adriatic Sea; it has borders with Slovenia and Hungary in the north, Serbia in the east, and Bosnia and Herzegovina to the southwest.

About 20% of the country belongs to agriculture and the most fertile region is located in the east. Almost 50% of the territory is occupied by grain crops. Sunflower, soybeans, and sugar beets are also produced. Croatia is rich in mineral resources, including oil and coal.

**Pula Film Festival** One of the oldest film festivals in the Balkan region.

**The Book Fair** has a profile that is a Festival of authors and publishers.

**Olive oil**, the best and highest quality in the whole world.

**Croatian wines**, Istria is a leader in the production.

**CULTURAL OF ISTRIA**

**Pula** is the largest tourist, industrial and transport center, which is located at the southern end of the Istrian peninsula. The undeveloped natural environment of the city (located on low hills, overlooking the Adriatic) is known for its mild climate and beautiful sea view.

The city is also known for its buildings dating back to the time of the Roman Empire, the most famous of which is the well-preserved Pula Arena. About 60,000 inhabitants live in Pula, making it the eighth largest city in Croatia, and it occupies the fifth place in terms of population density.

On the Istrian coast, there are short, mild, comfortable winters and long, dry summers (the average temperature in Pula is a 16-17 °C throughout the year), the number of sunny hours reaches 2900 per year.

It is believed that Pula was founded by the ancient Greeks and became one of the first colonies of Helen in the North Adriatic. Some find references to the city in the famous legend of the Golden Fleece and the Argonauts. The history of Pula is presumed to be around 3000 years old.

## FOCAL POINTS IN THE CITY

- PULA'S MARKETPLACE
- ARCH OF THE SERBI
- ROMAN THEATRE
- KASTEL
- MENASTRY AND CHURCH OF ST. FRANCIS
- TEMPLE OF AUGUSTUS
- ACQUADUCA PULA
- PULA ARENA
- SITE OF HERCULES
- STEEN PARK
- STRECPARK
- HEADS OF STRABONLUSIDE

An architectural complex consisting of the Church of St. Francis and the monastery of the same name located next to it. The construction of the Cathedral dates back to the 14th century.

The Arena is the main symbol of the city. This is a large amphitheatre built in the 1st century AD for gladiatorial battles. The arena is currently used for summer events.

The Incubus Gate is another ancient gate located between two medieval towers, built from burnt stone.

The Triumphal Arch of Sergius is an ancient arch in the Roman style, erected in the 30th BC built in honor of the influential pulian family adjacent to the city gates.

The ruins of an ancient small theatre located near the Roman remains. During World War II it was destroyed. Now there is a small museum.

The Temple of Augustus built in honor of Emperor Augustus and the god, Augustus Roma. During World War II it was destroyed. Now there is a small museum.

The international port in Pula is located in a naturally formed harbor. In the old days, it served as the main military port of the Austro-Hungarian Empire to provide water links with Italy and Yugoslavia.

## CITY ANALYSIS

### EXTENSION OF THE CITY

In 1912, the Pula zone the Harbour Empire and becomes the main base and shipbuilding center during the second half of the 19th century.

During this period, the city undergoes its most intensive period of development. Following the emperor's abdication when WWI, Pula becomes part of the Kingdom of Italy.

### ROAD SYSTEMS

During WWI, Pula is a secondary bombing target for the allies. Many parts of the city and ports are destroyed and some important monuments, including the Temple of Augustus and the Cathedral are heavily damaged.

Most of the current public parks and open spaces in the historic core are the result of these bombings.

### TRAM LINES

One branch traversed along the coast and directed to St. Polycarpus (the depot and a new cement factory).

The second branch passed by Marine Casino and across the center of the city along the Arena and then again to the railway station. Later on a branch from Arena to Siana forest was built.

### BUS ABILITY

The public transit services is mainly used by the student population. Although there are sufficient number of bus stops in the city around the old historic core, and along the center of the city according to the citizens of Pula more bus stops are needed. Buses should operate more frequently not only in the city but also in the vicinity of the city of Pula. As the green area in the Southern part of Pula would be later developed as a major recreational area.

### CAR PARK ABILITY

According to the available information, the maximum occupancy of the parking lot is between 900 and 1100 in the morning, while parking lots are less busy in the afternoon.

### GREEN AREA DEVELOPMENT

There are 1,345.25 ha (43.42% of the city of green spaces within the urban area covered by the General Urban Plan. Surfaces for sports and recreation are spread on 360 ha (12.52% of the city area). Public green spaces maintained by Pula Municipality cover 72,247.9 ha, out of which 81,495 ha are overgrown parks, and seven under park plans are.

### PROTECTED AREAS

Protected green areas are spread over 923 ha, which makes 29.1% of total City area. In the period from 2008 to 2014 the total amount of maintained green areas - parks has significantly increased - by 33.1%.

### PULA TRAM

Tram on the Old Quay, 1912.

Pula tram line to Siana forest.

### WALKABILITY

The big problem with pedestrian traffic is the passenger cars parked on pedestrian footpaths. In this case, pedestrians are forced to use the road surface in bypass the parked vehicles.

Furthermore, pedestrian crossings that are located in inappropriate places and not properly are also a problem sign, need and illuminated.

### CYCLABILITY

Cyclists mostly ride on roads and sometimes on pedestrian corridors because there are no separate bike lines.

There are no cycling routes, garages and bicycle stands, so bicycles are generally parked in the corridors of residential buildings, balconies or in apartments.

## ACTORS MAP

Family with two children.

Tourists.

Local students.

The Actors Map shows various stakeholder groups and their interactions within the city context.

## FAMILY MAP

The family map covers many places of the city such as schools, kindergarten, playgrounds and more.

Design Strategies:  
- One of the considerations is transformation of the shoreline. As the proposed site is a nature 2000 site (Nature Protection area), a light structure Park Dock has been proposed to minimize threats to local fauna, protect fish habitats and maintain the local ecosystems.  
- The harbor area suffers from a lack of adequate public amenity. A sailing club is proposed to promote canoeing activities that is one of the most popular seaside activities during summer. The club is to be used by local citizens and students from local universities and schools. Entrance will be free for students.

## TOURISTIC MAP

The purpose of tourists is to see as many sights as possible in Pula. Basically, their route runs near the port and covers most of the ancient sights of the city center.

## STUDENT MAP

The student's life is concentrated mainly near the university and in the second half of the city center, where there are bars and clubs that are popular among young people.

# LIFE TOWARDS THE SEA

**SWOT Analysis**

Strengths & Opportunities:  
- Unique & healthy coastline and harbor setting  
- Healthy and quality life (the city of the sea and the Sun)  
- Multicultural history  
- Local atmosphere  
- Cultural identity of the city  
- Pleasant climate

Weaknesses & Threats:  
- Traffic and infrastructure problems  
- Lack of the city center  
- Lack of green spaces  
- Lack of infrastructure for sustainability  
- Overdevelopment of historical buildings  
- Lack of investment  
- Lack of investment

**Reactivating Historical Train Lines**

A key element of the city's attractiveness is that it allows its residents to move around the city safely and efficiently. City buses connect the town center with all parts of the city (34 lines), but these facilities are not enough.

A potential long-term solution, combined with further expansion of the network, will allow for fast, reliable and high-capacity transportation to the city center on appropriate routes to provide public transportation.

Pula had an electric train system in the early 20th century but it was dismantled after the First World War.

First of all, we want to reactivate three diverted railroad tracks near the harbor and create a new connector between the shoreline and the city center which can be an attractive travel route for tourists.

Secondly, there will be another trainline from the city center to the University of Pula. This new train connection will help in creating a strong connection between the student campus and the historical city.

**Parking Space**

There are some parking lots in the city center along the shoreline. To increase exposure to the shoreline and provide greater visibility to existing fairs, these parking areas will be demolished to create a green corridor along the shoreline.

In their place, two new multi-story parking lots will be proposed. One will be close to the phyed plaza (3rd design area) and the other in the city center near the tourist attraction zones.

**Proposing Bike Paths**

Unfortunately, bicycle culture is not developed in Pula. With a lack of parking spots, people are forced to park their cars on the street in the way of potential bikes.

With the development of bike lanes between the old city, new city and designing areas, as well as bike racks for locking up their bikes, Pula would become a more sustainable and healthy city.

**1 Entrance of the City**

This area in the northern part of Pula is one of the entrances to the city. It is close to the Colosseum and the historical train station is right next to the harbor.

**2 Creative District**

The harbor front is a historical, under-protected area converted to the city center.

We have reimagined the urban street framework and designed the public realm around it: include terraces, parks, play areas, places and event spaces with better pedestrian, cycle and public transport connections.

We have focused on the 3 harbor areas (1 and 2 zoning areas), which now has a weak connection to the city center in terms of accessibility.

Our design strategy includes:

- Removal of historical buildings located in the harbor area and proposal of functions such as museums in the already existing historic buildings to integrate the public landscape and historical city features.
- Reactivation of the train line to connect the shoreline and the city center.
- Enrichment of the individual identities of the harbor by connecting them with the public realm.
- Creation of a new cultural district as an exhibition area where Pula's unique activities such as film exhibition, book fair, wine festivals etc. can take place. These new activities would also create economic opportunities for the local people.
- We believe that a combination of parks and the new proposed functions in the shoreline which has years of history can play a vital role in the new plan to dramatically transform Pula's city area.

**3 New city recreational area**

There is not enough greenery in the city center. There is a widely used protected forest park Siana Wood but it is quite far from the city center.

With increasing urban expansion in the core areas of the city, green areas are gradually decreasing. As such, a new green recreational area is proposed in the southern part of the city close to the city center which can serve as a green lung for the surrounding neighborhoods.

**Forest**

The forest will help in improving biodiversity of the city. There is already a forest in the northern side of the university campus. To create a connection between these two green areas, a bike line has been proposed from the campus to the forest. This access to the recreational area will also provide a unique green experience for the students of the university.

Hochschule für Technik und Design | imla |

MAIN PROJECT 0 - WINTER SEMESTER SUPERVISORS: PROF. DR. INGRID SCHNEIDER, PROF. DR. ING. BENNO SCHNEIDER, PROF. DR. WIRTHEN-ING. LUDWIG SCHNEIDER, PROF. CARL HEINE EMMEBRODER, DR.-ING. ELLEN PETER, DIP.-ING. (FH) STEFANIE GRUBNER

# INTERFACE- CAMPUS PULA



### Problems/Potentials

**Problems:** The old campus site is not fully utilized. There are some abandoned buildings, which can be renovated and can be used for new facilities.

**Potentials:** The landscape, open spaces inside the old campus are not maintained or designed as for institutional purposes. It is not user friendly.

According to student demands there are some lack of facilities. As per our survey during the workshop some of the issues were highlighted by the students.

Due to lack of parking cars are parked everywhere, within campus areas, outside campus areas on street. It causes disturbance with the pedestrian access.

**Problems:** Location of the university. It is in between the old and new part of the city also close to the park and other public facilities.

Within the campus, open spaces have many large old trees and green areas. It is possible to develop as a vibrant outdoor space focusing student demands.

One very interesting archaeological site is within university campus, where university has already done research and studies. Therefore there is the potential of opening a new department related to archeology heritage related studies as the demand of related studies are increasing internationally.

**Respecting Topography:** The topography of the site is considered in the new proposed design of the campus. We have considered the topography, contour lines, not an obstacle to the site rather using it for vista, viewpoints, and for distribution of functions.

**Car Parking:** Car-free campus strategy: A car-free campus will provide better interaction areas, facilitate pedestrian movements. The whole campus will become a garden for learners where they can move freely within green and without vehicular hazards. It also has better psychological and environmental impacts.

**Parking solution:** Multi-storied parking is proposed close to the university. A high-storey parking building made of steel structure can be built which will reduce the amount of space which is currently used because of surface parking.

**Forest expansion:** As the existing parking area is proposed as a multi-storey parking building, it provides the scope for expanding existing green area close to the parking area. The expansion of the parking area will have less environmental impact.



### Concept Evolution

University as a transition between old and new. The campus is located in the prime location of the city which is within walking distance from the historical heritage part of the city. The university of Pula stands as one of the prime buildings throughout the historical developments of Pula.

To the western side is the Historical Core and to the western side City Pula is developing. The campus is located between the old and new juxtaposition. Also in the western and southern side there are more green areas so there is the potential to connect the campus to these green-urban areas.

The concept 'interface' comes from this juxtaposition and therefore the objective is to create a vibrant urban campus for students and the people of the city. The mission was to create porous edges and make the edges of the campus transparent instead of being closed so it can work as a more public and vibrant educational campus which will invite more people inside. The experience will range through green, open spaces, plaza and the purpose is to offer vibrant academic atmosphere among students and faculties.

**Connections:** Connections with the City: The campus in its proposed design offers better transition experience for the users. Some connections are offered throughout, and the connections are either through green areas or within vibrant campus areas. The pedestrian around the campus area is extended wherever it has been possible in the proposed design.

**Connections with Old and New Campus Area:** The new and old campus is located close distance. To connect these two areas, pedestrian paths are offered. Same type of materials will be used both for the foot and the walking so the foot merges with the plaza and creates the ambience for a more public space and widened up plaza with better space quality.

**Connections with Hospital Park:** As the old campus was a part of a hospital area, and some parts are still used by hospital authority, the campus is connected with the hospital through landscape with accesses and open spaces.

**Connections with The Forest:** As the forest green area is extended in the proposed design, the campus now offers better connection with the city in the eastern side through forest green area.



### Proposed Functions

**Cultural Center:** It is a significant historic building. University has a proposal for renovating this building. In the proposed design, the proposed function of this building is to use it as a cultural center where different types of activities will take place like film festivals, arts exhibitions, book fairs etc.

**Cafe:** A small cafe/coffee bar has been proposed as per student's demand where they can have some break and which would be also convenient for them.

**Wellness Plaza:** Different type of tree courts and welcoming plaza have been proposed in the already existing green areas between the university buildings. The students want different types of spaces as a part of open gardens where they can gather and enjoy different activities.

**New Proposed Building:** Library: This is a growing university where it has high potential to open new departments and extend its facilities. The heart of the university is its library facilities where not only students but also citizens may come for resources and its facilities. And it is also students' requirement that they want an extensive library with outdoor reading areas or many different types of reading areas and discussion spaces. All per requirement a new building is proposed where it can facilitate all the services.

**Student and Archival Department:** As the university already has an archeological site within the campus and has objects which they may exhibit, there is the scope of publishing the research which has already done among its archeological site and share the process. It will be a significant step for the university and gain 'green attention' internationally. Having considered this, a new department related to archeological or historical studies has been proposed which has high demand internationally.

**Extension of Institutional and Classroom Buildings:** Some buildings are proposed to be renovated for further classroom and institutional facilities, as the number of students are increasing and the university will need these facilities in the long run.

# CAMPUS PERSPECTIVE



The image shows the bird's eye view of the tree courts between the new building with institutional facilities and the museum building in the entry. The tree gardens (with seasonal flowers, bush) with benches and the pedestrian links connecting the gardens create a relaxing atmosphere for the users.



The central entry plaza showing the fountain, the tree courts with benches made of Corten Steel inviting people to the main University Campus Area.



Entry plaza to the campus at the North showing the central axis, the stairs with permeable paving and the tree courts in between. The porous concept has been tried to maintain through the inclusion of trees and soft paving.



A small cafe made of containers has been proposed on the southern side of the campus. To the left is the fortress area and in the background there is the central plaza. On the southern side, the objective was to create more vibrant public areas with many functions such as sports court, movie exhibition etc. so the cafe with outdoor seating would be a welcoming refreshing zone for the students.



A close view to the tree gardens with Corten benches. In the background the stepped plaza in the central axis can be seen.



A view view to the cultural exhibition corner in the fortress area. As the fortress would serve as a cultural center, the grassy slope of the terrain can serve as informal seating for the students and users of all ages. Also different functions such as movie nights, music concert, or seminar can take place here.



# P.U.L.A.



Anna Volken  
Brazil



Melissa Zapata  
Columbia



Raphaela Roming  
Germany

## Analysis Conclusion

Pula is a 3000 year old city with great historical values and cultural heritage and presents tourism as the main economic activity. With its crystal water beaches and ancient sites, Pula is a charming town and a perfect destination for a summer vacation.

## Concept "Pula - The Young Costal City"

Being young means to be curious, to explore, to be healthy, to be active and to do outside activities. Our main strategy to make Pula young is to attract young people - with a focus on University students, bringing them outside the Campus and connecting them with the city - but also young tourists, families, students and business people.

We also want to bring new jobs and businesses to the city by creating a new quarter with many activities and opportunities and enhancing the general quality of the city; to connect various tourist attractions and to promote outside activities, such as cycling, sports and sailing. To achieve the goal of the concept we are applying the strategies into 4 main focus areas: The Line, The Network, The Shipyard and The Campus.

## The Line

A pedestrian and bike zone along the coastline to connect the old town of Pula, the newly developed shipyard quarter and the peninsula with the addition of promoting outside activities.

The coast and the sea in the city of Pula should be experienced through the line and become part of the city. Areas for leisure within this line, installations in interesting historical places, art installations, relaxation areas and open views of the water make the line a special experience in the future, young city of Pula.

## The Network

The project proposes a better connection of the elements present in Pula. For this, the buildings of historical value and the places of importance for the city are taken into account for the creation of The Network. The connections of the current road system of the city are sought to be improved through the prioritization of the roads for pedestrians and the inclusion of greener means of transport like bikes.

## The Shipyard

The quarter is currently closed in terms of access, with a wall surrounding the area and blocking the ocean views. Our idea is to create a young, sustainable quarter that brings new life and attractions to the city; with new uses such as: cafés, bars, sports, residential areas, tourism, business and startups. The main goal is to open the area, creating strong pedestrian axes with green character that connect to existing green structure in the surrounding area.

## The Campus

The campus is characterized by a mixture of new and old/historical buildings, which creates a nice context for the open spaces, but on the other hand there are abandoned old buildings with bad quality. In terms of open spaces, the campus already presents a good amount of green open areas with impressive old trees and good spatial frame, although they currently look abandoned and with no use. The topography plays an important role in the area, with 20 meters difference from the lowest to the highest point (north to south).

## Campus Concept

The campus concept aims to create a connection between the city of Pula and the university. An internal pat network and connections to the surrounding area should help to integrate the University of Pula into the city life and identity. For this purpose the campus

should be opened to all sides and be easily accessible. All entrances to the campus are marked with a brass-colored symbol of a modified version of the Uni Logo.

The FET building which has not yet been connected to the rest of the site will be visually linked to the rest of the campus. The connection to the campus becomes visible by adapting the paved areas to the new campus design and adding a line of trees. Short and direct path connections on the campus are aimed.

In the design process for the campus connecting all entrances to the campus and thus creating a network was crucial. In its application on the site these planned path connections were created as shortcuts through the existing green spaces.

The interesting topography of the place should be retained and used to create special places. With the help of fine steel upstands made of black steel the changes in terrain are absorbed.

Since the existing green spaces on the campus have enormous potential and the old trees should be preserved strong changes in the terrain are not possible. The new zoning and the offering of various lounge areas give the outside areas greater quality and more uses.

The existing buildings on the campus are partly without any use and in poor condition. As part of the campus concept, all existing buildings should be integrated and reactivated by appropriate changes in use and restorations.

The building on the northern campus border in the direction of Zagrebačka Street will in future be used as a library that is also available to the public. So the campus gains in importance in the city of Pula. The building to the west of it should be used as a new Dean's office and for university staff.

The centrally located building which is currently used for research is converted into the new faculty building with a

student café in the ground floor.

The old fortress will also be redesigned with small changes in the floor plan, making it usable for various requirements.

The parking situation which is currently very chaotic and overloaded will be improved by reorganizing and expanding the existing gravel parking lot. Additional parking spaces on the new multipurpose building should cover further parking space requirements and also offer charging stations for electromobility.

The campus is designed to be car-free and is only accessible to pedestrians, cyclists and e-scooters. The centrepiece of the new campus is the new building and the matching outdoor facilities, which create an open, usable space in front of it and create the connection between inside and outside through the old trees.

### **The Multipurpose Building**

A new building as a representation of the renewed Campus, with spaces for open or closed events/exhibitions, flexible layout for study rooms and new startups' offices. The sustainability is reinforced by the materials (steel structure, glass and wood), the parking reserved for electric cars and roofs with rainwater collection and solar panels.

### **Economic Concept**

Having the Old Fort as a rentable space in the campus and an event location; boosting the Startups' offices initiative, with new space in the multipurpose building to attract new investors and using the Café/Bar as a place where students could work and apply business strategies.

### **Conclusion**

Reinforcing the concept, the overall goals are to create a young and vibrant coastal city with new, contemporary and innovative design solutions that attract students, young families, active tourists and young professionals; to highlight the importance of the campus with its new identity; to enhance the sea border and to create connections between historical and new elements.

In this way, it seeks to reinforce the characteristic elements of the city, connect them and give them a value and use according to the activities of a tourist, historical and active city.

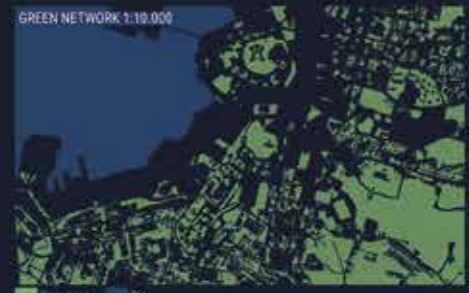
# ANALYSIS THE CITY OF PULA



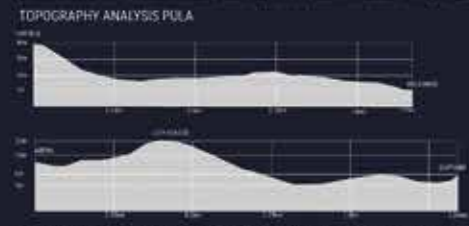
With a look at the basic plan of Pula the city can be divided into three different city areas. The historic old town in the central part of the town, Roman and Medieval cultural goods dominate and in general paths, cultural goods from the period of the Austrian administration. In the first part, they are furnished constructions which started just in order to protect Pula. Its targeted road grid (18th c.). Today's urban structure also makes a major contribution to the structure of the city of Pula. The history of urban planning can still be clearly seen today with its grid of the city. The urban grid areas are mainly characterized by residential buildings and industrial sites.



The city of Pula is well developed and easily accessible via a network structure due to the connection to the national E731 European route. The quality of Pula railway line runs along the coast peninsula in a north-south direction and connects the port city of Pula to the European railway network. The city of Pula itself has a dense road network and all areas of the city are well developed. Due to the preferred use of the car by the Croatian population, the main developed for car traffic, an automobile network everywhere in the city. Making connections are also available and you can easily reach all areas of the city. However, the quality of the footpaths is often in need of improvement and important connecting routes in the old town should be specially supported to create a better network. Before paths are not well developed in the city of Pula but are not directly connected to each other.



The city of Pula already has a good network of green spaces. However, there are often isolated and without connection to one another. Due to the many private green spaces in the neighboring areas, the city as a whole seems to be very green. However, many areas are not available for public use due to private ownership. There is no green zone through which one can comfortably walk through the city over in the summer in high heat.



With the help of topographic cross-sections of the city's terrain, the topography of Pula is shown in a clear way. The terrain is mostly flat, but there are some hills. The terrain is mostly flat, but there are some hills. The terrain is mostly flat, but there are some hills.



In spring 2012, the architectural company Glednik published the book 'History of the Shipyard of Pula'. The book is a study on the history of the shipyard and its role in the city of Pula. The book is a study on the history of the shipyard and its role in the city of Pula.

### CROATIA

The country of Croatia covers an area of 56,594 km<sup>2</sup>. It lies east of the Adriatic Sea and extends from the eastern edge of the Alps in the northwest and the Pannonian Plain to the east, over the Dinaric Mountains in the middle, to the Adriatic coast in the south of the country. The population of 4,156,649 is largely made up of Croats. The national minorities are: Serbs, Hungarians, Czechs, Slovaks, Italians and others. And as the capital, Zagreb is the largest city in the country with approximately 801,000 inhabitants. The country has a coastline of 6,175 km. Of which 1,778 km of coastline along the mainland & 4,398 km on the offshore islands, coves and rocks.

### ISTRIA

The length of the whole Isthmian coastline, including the islands, equals 534.4 kilometers (according to Physical Planning of County of Istria, 2010). The total number of inhabitants in the county is 208,344 or 4.6% of the population of the Republic of Croatia.

### AGRICULTURE

3,150,000 ha agricultural land  
2 million cattle and 1 million sheep and goats  
2 million head of pigs and 1 million head of chickens

### FISHING & FISHERY PROCESSING

Are mostly related to the coastal and island areas of the country.

### INDUSTRIAL BRANCHES

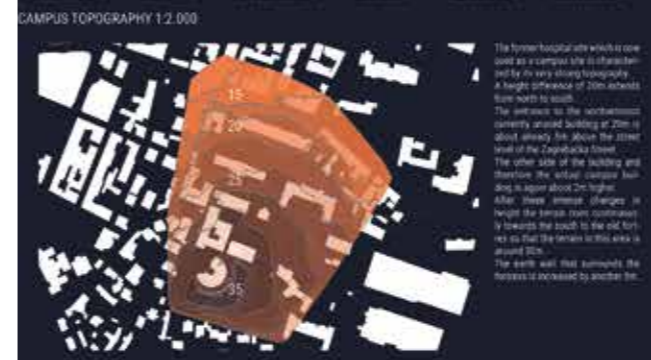
Food, drinks and tobacco, and these are followed by the chemical and metal industries.

### SERVICE INDUSTRIES

Tourism and related services. In this sector, the highest turnover is achieved by small and medium sized enterprises.



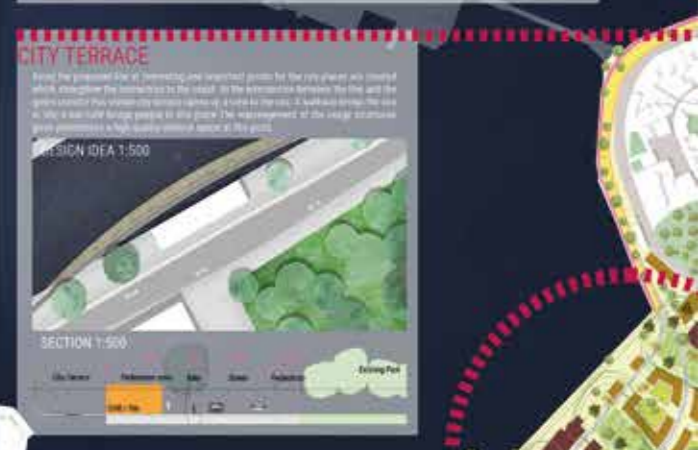
# ANALYSIS THE CAMPUS

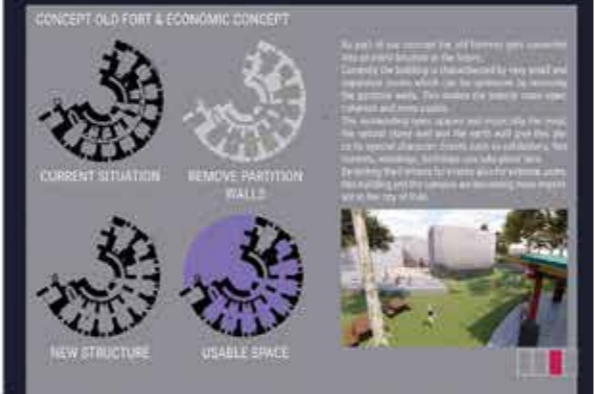
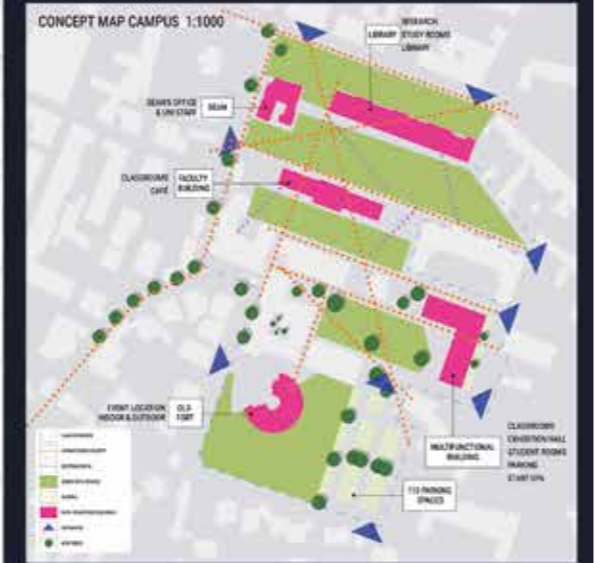
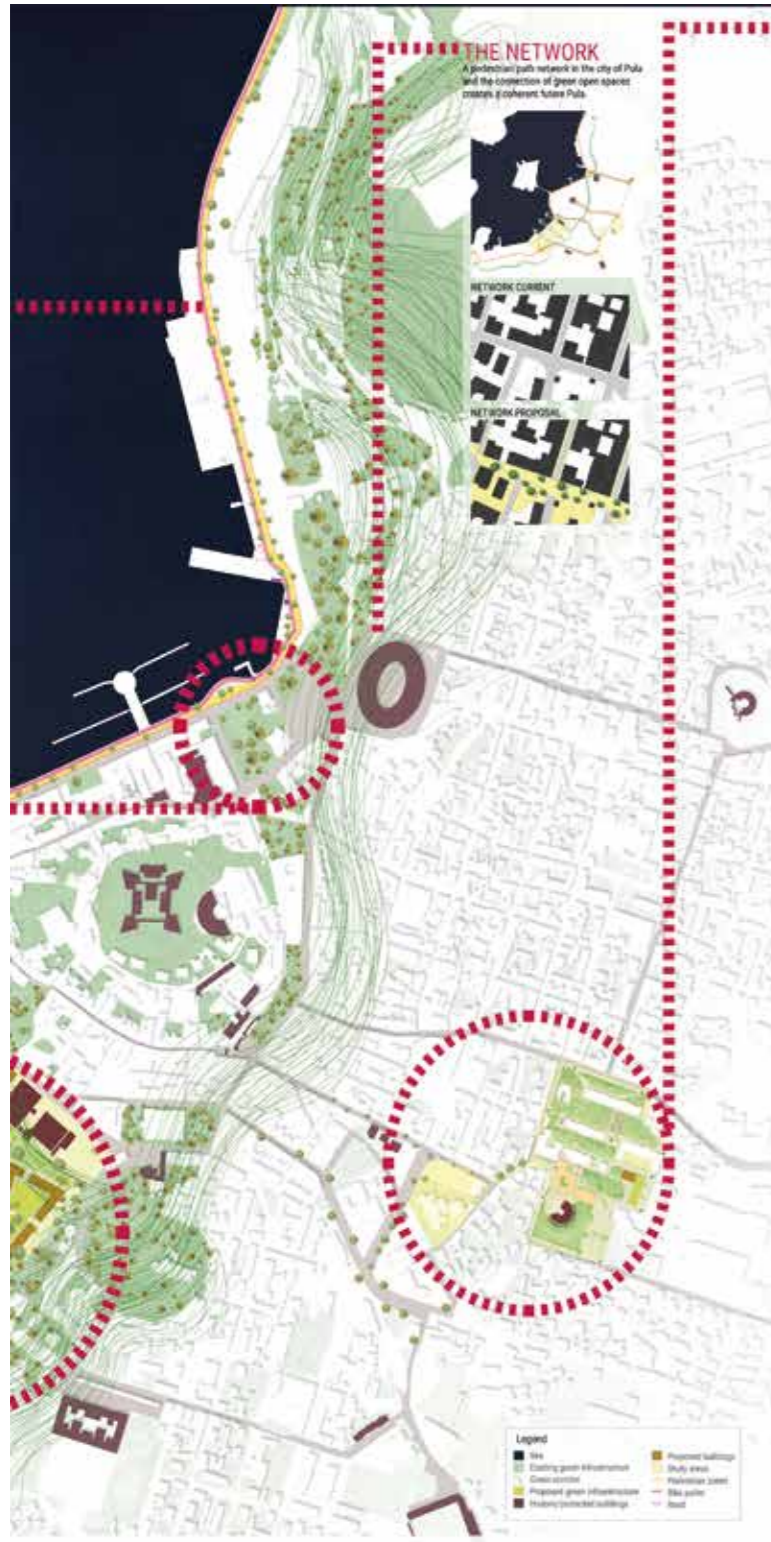


# CONCEPT PULA - THE YOUNG COASTAL CITY

**HOW CAN WE MAKE PULA YOUNG?**

- Attract young people: Young tourists, families, students, young business people
- Bring the students outside the campus and connect them with the city
- Create a new quarter that offers many activities & opportunities
- Bring new jobs to the city / businesses
- Connect various tourist attractions
- Continue & strengthen the sailors tradition and make it a part of the young Pula
- Promote outside activities, such as cycling, sports, sailing





# Master Thesis



Amir H. Shahrestani  
Iran

Pula is one of the old and historical coastal cities which has a long history of civilization. The city has more than 3000 years' worth of history and has faced various different empires and governments. It has gone through many changes during the years, adapting to different cultures, uses and purposes.

Pula is the business and cultural center of this region. In the last centuries, a large area of the northern shoreline has been occupied by industry (shipyards), and the historical part, which is close to the north coast (Northwest of the city), has heritage sites and interesting buildings for heritage tourists to visit.

In the west and south-west of Pula, there are many incredible beaches which constitute Pula's most popular touristic destinations. But the negative impacts of the shipyard on nature and the citizens' daily lives, plus the bankruptcy which is being faced, as well as the lack of sustainable tourism, all contribute to making this place more fascinating to study and to find solution for.

## Goals

- Reducing unnecessary gray infrastructure
- Increasing green infrastructure
- Preserving the existing green spaces
- Connecting the city to the coastline
- Make the coast active for public use
- Develop and increase sustainable tourism
- Reusing old buildings for public use purposes and reduce construction waste
- Increase public awareness about the environment
- Encourage the public to use green energy/transportation

## Method (RtD)

This report procedure with the method of "Research in design". This research method helps to concentrate on the specific site and focus on the stakeholders and the area's needs.

Involving the users/stakeholders in the process of the research and putting

them on the stage of decision-making in order to have a functional result at the end of report was very important. Finding problems and trying to solve them in the design process (artifact) with the stakeholders and specialists will produce the possibility to implement the solution design product (artifact) in reality the difference to the usual design process is the stakeholder's satisfaction.

In this field of research, we have a physical and an environmental element which needs to be changed. In order to achieve these changes, which is our goal for the future, this method is completely suitable.

Research in design has three ways of approach:

- Research into design
- Research through design
- Research for design

This research paper proceeds though (by) design.

## Research by design

(Rob - Roggema,2007) is one academic research type that provide solutions through design, and uses different methods, such as sketches, mapping, literature reviews, etc. But the aim is providing physical and functional solutions by exploring the possibilities and opportunities of the site.

The steps of research are:

- Pre-design
- Design
- Post-design

Research starts with analysis which leads to better and deeper knowledge of the site, then jumps to projection, so that we can have a preview of the future, and finally synthesis, which can show us what must happen.

## RtD Process

- Pre-design phase /Concept

The first step of the research through design is pre-design. In this stage the researcher/designer starts to get to know the site and its needs, which leads the researcher to questions. The researcher continues the research by connecting/communicating with stakeholders and the experts. The



research is followed by Analysis combined with understanding of current design to ascertain the main problems. This is the foremost challenge for the researcher. The initial design (artifact) starts in this part, with the collected data and information of the site, which brings the basic

perception into the design process.

- Design phase / Design

The design phase is the most important part of research we can say, it is heart of it. In this stage, the researcher continues the design considering all the assimilated data and the information analysis. The researcher will exchange the concept / design with the stakeholders and experts. Research continues as questions an answered and explained from the initial work and projection is formed into a preview. The research and design interests work together, to produce the proposal with consideration of reality and rationalization.

- Post-design phase / Detail design

The post-design phase is the final phase which shows the result of research. It shows what the future will look like, or what must be done to achieve the goals with clear milestones, all aspects considered.

### Strategy and milestones

This research starts with the general information and data about the country. The second part involves continued collecting and reporting of important data and the general analysis of the information.

The next step was to ascertain the main problem and, with the help of literature review, find initial solution ideas. The research follows with questionnaires and interviews for the stakeholders in order to understand their point of view, then the literature and interview experts clarify the main questions and problems. Going deeper into the subject, returning to collect data for more analysis with a view to understanding the site more thoroughly will be the next part. Reviewing case studies to see the

examples of the same problem situations faced elsewhere and their concepts/ways of finding solutions, can help the design process to bring diverse ideas for the site's existing opportunities and provide a variety of possibilities for developing the result/ design/ Plan to implement on the site.

### Interview and questionnaire

The way of getting to know the citizen's needs, desires, and wishes is to conduct direct interviews, to work with questionnaires and to collect feedback. Analyzing and evaluating the collected data can help toward the next step, which is the concept and design for the stakeholders.

This report invested on interview and collecting the answers of questionnaires from 15 people, citizens, aged between 18 and 55 years old, students and employees and entrepreneurs. The questions that were shared in the interview and questionnaires were about 3 different topics:

- Their needs and desires (in their daily life in the city of Pula).
- Pros and cons (what are the problems and what are the potentials in the city of Pula)
- Shipyard (Their opinion about the shipyard bankruptcy and the shipyard location in the future).

### Citizens' (interviewees') needs and desires

The interviews were conducted directly by the author and indirectly by students in Pula. To categorize the data, I needed to concentrate on answers and preparing the list.

Then I made two categories, the first category was what is the citizens' hope (what are the city's potentials that can be improved so that they will be satisfied) and the second category was; what the people worry about (the problems of the city that affect their life directly or indirectly).

### Back to interview stakeholders and experts

The results from interviewing ten citizens, two experts (Experienced Landscape architects from Stuttgart, Germany) and advice from supervisors (two Professors from IMLA program) are:

After accepting the achievements of the concept, it is time to have a critical look at it in order to develop new ideas.

### Critical view:

- There are already many hotels and restaurants in the city center; it will be helpful if we have a map with the location of these restaurants and hotels, in order to evaluate the city's needs, and maybe reduce the number of hotels and restaurants in the concept design.
- Adding more educational facilities, such as a university campus, can contribute towards using the preserved buildings efficiently. There is a university with 2500 students which shows the need for a new campus for university development.
- Concentrate more on the identity of the place.
- Relocate the fishing boats port to a more suitable place but keep its identity and role in the city's culture.
- Connect the green surfaces/spaces.
- Add more activities for tourists as well as citizens.

### Conclusion

- Mapping the facilities in the city center:
- hotels, restaurants, cafés, bars
- Review the case studies
- Review the identity and history of the place
- Find a suitable place for fishing boats port
- Improve the green infrastructure
- Connect the green spaces
- Add more activities for citizens and tourists



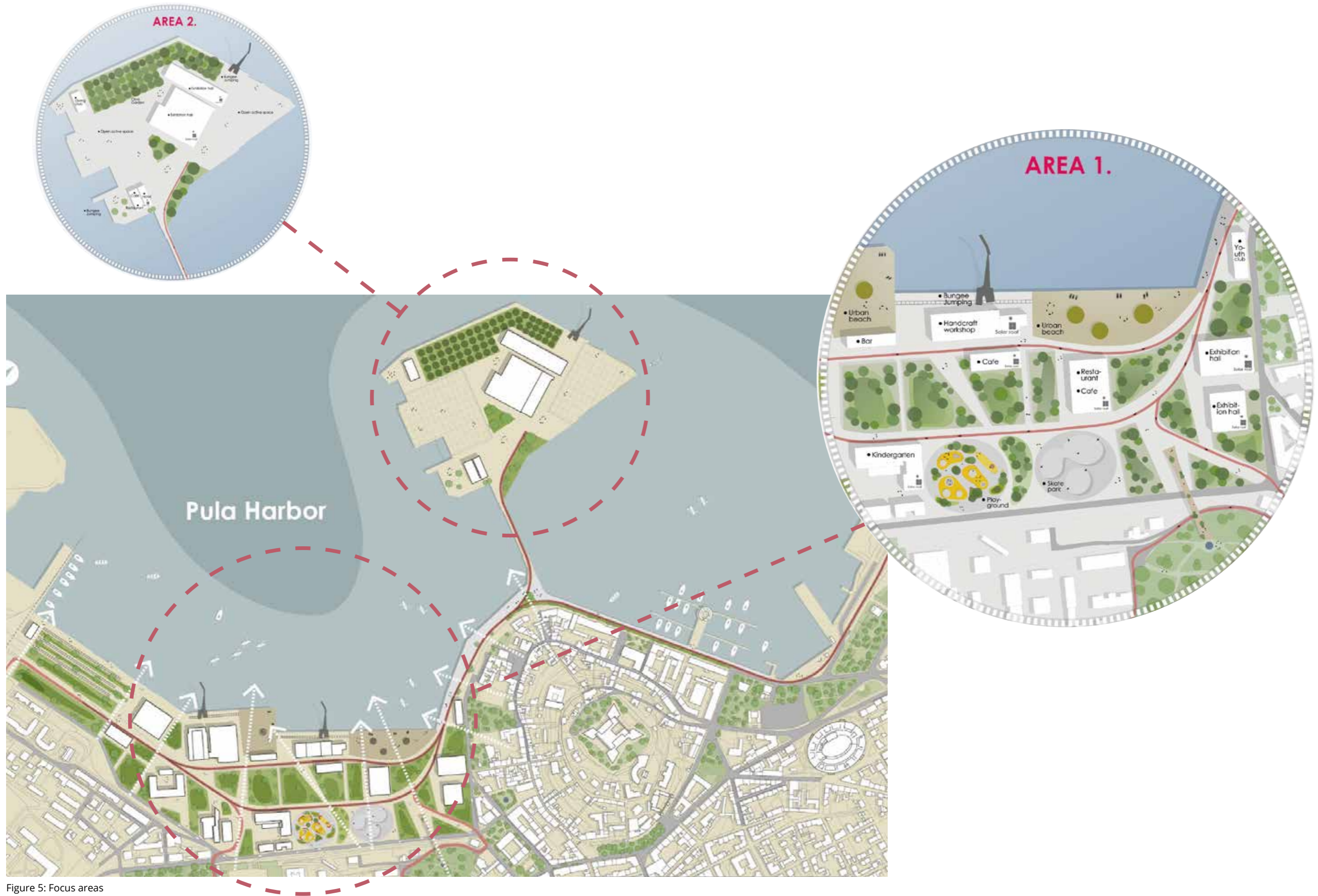


Figure 5: Focus areas

# Imprint

## EDITORS

Ingrid Schegk  
Stefanie Gruber

## LAYOUT AND COVER PAGE

Arati Uttur

## DESIGN

Aida Kadic  
Arati Uttur

## DATE

June 2022

## CONTACT

IMLA - International Master of Landscape Architecture  
[www.imla-campus.eu](http://www.imla-campus.eu)

Hochschule Weihenstephan-Triesdorf  
[imla@hswt.de](mailto:imla@hswt.de)

HfWU Nürtingen-Geislingen  
[imla@hfwu.de](mailto:imla@hfwu.de)

## PROJECT PARTNERS

Jurai Dobrila University of Pula  
University of Sarajevo  
International Burch University Sarajevo

All photos on page spreads and chapter heads, unless otherwise mentioned: Ingrid Schegk

All profile photos are copyrights of respective owners unless otherwise mentioned

All graphic content is the property of this document unless otherwise mentioned

Sources of geographical data:

Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, GIS-Anwender-Community





International Master of Landscape Architecture  
[www.imla-campus.eu](http://www.imla-campus.eu)  
2022