STUDENT PAVILION

University of Ljubljana
Construction sector pollutes the environment the most!
LOCAL CHALLENGE IN CONSTRUCTION

- Urban genocide
- Use of construction materials that seriously harm humans and environment and are not locally produced; thus, they don’t contribute to local economy:
  Concrete – 8% of global pollution due to cement production,
  Brick – production of it highly increases CO2 emissions plus radioactive
  Styrofoam insulation – production of it highly increases CO2 emissions, no recycling potential, cancerogenic for humans
GLOBAL SOLUTION: SUSTAINABLE DEVELOPMENT
- Using knowledge from our history, combining it with modern architectural, sustainable principles and local, natural building materials to make healthy, environmental, affordable homes
- This in return, improves local economy and creates new jobs
OUR VISION: STUDENT PAVILION

- Made of natural, local building materials
- Community project: involve community and students in its construction in order to raise awareness
- Future operation: place for dialogue, research, innovation in sustainable, local architecture
WHY WOOD?

- Every year, European forests grow 346 million m³ (excluding Russia!)
- Every second, enough wood needed to build one house grows (without having to cut down the existing trees)
- 63% of Bosnian and Herzegovinian land is forests
- Good insulator that absorbs CO₂
- Healthy material
- Material that burns, but remains stable
- BH wood sector has great potential for global competitiveness
- BH produces about **200,000** tons of straw annually, which is now waste, but could be used in clean construction industry
- It is possible to make **10,000** passive houses (150 m²) with straw in BH each year!
- “**Factor 10**” – straw house consumes ten times less energy than a conventional building
- Simple construction technique, healthy material, good fire properties, excellent sound insulation
- Cheap construction material!
- Primary energy for its production is 7,5 less than for production of glass wool
- Excellent thermal and acoustic properties,
- It absorbs up to 40% moisture while not changing thermal properties
- 1,515,000 cattle in BH (FAO 2012)
- 80% local breed Pramenka
- Average per head = 1 to 1. kg of wool = 2,500 tons annually
- Before in BH: five processing plants and the production of wool
- Situation now in BH: one small factory
HEAT CONDUCTION AND POTENTIAL GLOBAL WARMING FACTOR

- Heat conduction factor
- Potential global warming factor kg CO₂/kg

Materials:
- Glass wool
- Mineral wool
- EPS
- Sheep wool
- Straw
- Wood insulating panels
- Straw insulating panels
- Wood
- OSB
# MEMBERS OF THE JURY

<table>
<thead>
<tr>
<th>Name</th>
<th>Title &amp; Institution</th>
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<tbody>
<tr>
<td>Prof. Dr. Mirza Dautbašić</td>
<td>Engineer, Forestry Faculty, University of Sarajevo</td>
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<tr>
<td>M. Sc. Ognjen Šukalo</td>
<td>Architect, Faculty of Architecture, University of Banja Luka</td>
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<td>Foundation Cultural and Heritage without Borders</td>
<td>Team</td>
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<tr>
<td>Donato Giuliani</td>
<td>Conseiller de Coopération et d’Action Culturelle, Directeur de l’Institut français, Ambassade de France en BiH</td>
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<tr>
<td>Zenit Đozić</td>
<td>Famous Actor and Producer</td>
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<td>Assist.Prof. Sanela Klarić</td>
<td>International Burch University</td>
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<td>Assist.Prof. Sanin Džidić</td>
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<td>Assist.Prof. Dina Šamić</td>
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<td>Mensur Demir</td>
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SUPPORT LETTERS

INTERDISCIPLINARY APPROACH

STUDENT PAVILION
FIRST PLACE AWARD

INSIDE SPACE 50 m²
OUTDOOR SPACE 50 m²
GREEN ROOF 110 m²

STUDENTS: Lamija Durmiš, Ajla Ćatić, Kemal Marić and Amina Talić
SECOND PLACE AWARD

STUDENTS: Ilma Jasarević, Semra Hasić, Lamija Meša and Esma Hećimović
THIRD PLACE AWARD

STUDENTS: Šefko Hadžić, Ruba Almonajad, Haniyeh Golzardi and Kenan Nurković
IMPLEMENTATION – SUMMER SCHOOL

Faculty of Civil Engineering and Walter:

Final design – building permit: April 2016

Preparation of the final construction design and structural analysis: May 2016

Beginning of construction works:

  Duration: one week

Phase II – Construction and Final works: 12 July 2016
  Duration: two weeks

LEARNING BY DOING!
80% of the recycled local, traditional, renewable and natural materials collected via public campaign as well as provided by different partners of the project.

- Used windows and doors and wood collected.
TOTAL PROJECT COST: 128.100,00 BAM

- 46.800,00 BAM (37%) for Student Pavilion
- 35.000,00 BAM (27%)
- 25.500,00 BAM (20%)
- 20.800,00 BAM (16%)

FUNDS RAISED FOR CONSTRUCTION
MISSING FUNDS FOR CONSTRUCTION
SUMMER SCHOOL FUNDS RAISED
SUMMER SCHOOL MISSING FUNDS

COST OF CONSTRUCTION: 67.600 BAM
COST OF SUMMER SCHOOL: 60.500 BAM

64% OF THE FUNDS ALREADY RAISED!
BIO BASE PAVILION WILL:

- have multifunctional purpose
- be open for public, accessible for disabled
- present innovation in interdisciplinary approach
- provide joint work of professors, experts and students
- help in promotion of natural protection
- encourage the reconciliation
- encourage the integration in EU

- promote green jobs
- promote local production and circular economy
- promote healthier and better quality of life
- provide environment for laboratory testing
- encourage new innovative startups
- promote private-public partnership
- promote and encourage sustainability
FUTURE PLANS

- recycling interior design,
- supervision and research of the building performances,
- renewable energy,
- promotion of traditional natural materials,
- sparking-up innovation and research
- home for researchers, innovators, environmentalists, eco start-ups, workshops, lectures…
INSPIRATION

Prof. Korjenić from TUW
STUDENT PAVILLION IS A COMMUNITY PROJECT!

WOULD YOU LIKE TO JOIN US?

www.studentpavilion.com
sanela.klaric@green-council.org