

CSAV Journal

2018

European Year of Cultural Heritage

Vernacular Technics

The technical heritage of Romania's villages
Patrimoniul tehnic al satelor României



Editor: Sergiu NISTOR

Coordonator: Ioana ZACHARIAS VULTUR

Editura Universitară „Ion Mincu”
București



CSAV Journal

2018

European Year of Cultural Heritage

Vernacular Technics

The technical heritage of Romania's villages
Patrimoniul tehnic al satelor României



Editura Universitară „Ion Mincu”
București

Director al Centrului CSAV și editor al CSAV Journal:

Prof. Dr. Arh. **Sergiu NISTOR** - Consilier Prezidențial pentru Cultură și Culte, fost președinte la ICOMOS România și Secretar de Stat în Ministerul Culturii și Patrimoniului Național (2012-2013), membru al Departamentului de Istoria și Teoria Arhitecturii și Conservarea Patrimoniului, UAUIM

Secretar științific al Centrului CSAV:

Asist. dr.arh. **Ioana E. ZACHARIAS VULTUR** - Departamentul de Istoria și Teoria Arhitecturii și Conservarea Patrimoniului, UAUIM, Membru activ OAR, editor revista ZEPPELIN, fost redactor revista ARHITECTURA 1906: <https://www.linkedin.com/in/ioanaz/>

Comitetul științific al CSAV Journal:

Dr. **Ligia FULGA** – director, Muzeul Etnografic Brașov

Prof.dr.arh. **Kázmér KOVÁCS** - membru al Departamentului de Horticultură, Universitatea Sapientia, Facultatea de Științe Tehnice și Umaniste

Dr. **Christoph MACHAT** – membru al Comitetului Executiv al ICOMOS

lect.dr.arh. **Gabriel PANASIU** - Departamentul de Istoria și Teoria Arhitecturii și Conservarea Patrimoniului, UAUIM

Coordonator al CSAV Journal:

Asist. dr.arh. **Ioana E. ZACHARIAS VULTUR** - Departamentul de Istoria și Teoria Arhitecturii și Conservarea Patrimoniului, UAUIM

Pagina web a publicației și centrului de cercetare: www.csav.ro

Pagina Universității de Arhitectură și Urbanism „Ion Mincu” București : <https://www.uauim.ro/en/research/dealufrumos/>

Anuarul Centrului de Studii de Arhitectură Vernaculară UAUIM
(Dealul Frumos) = ISSN 2068 – 472X

Design, traduceri & DTP :

Asist.dr.arh. **Ioana E. ZACHARIAS VULTUR**

Arh. **Ionuț PARASCHIV**

Editura „Ion Mincu”
Str. Academiei nr.18-20, București

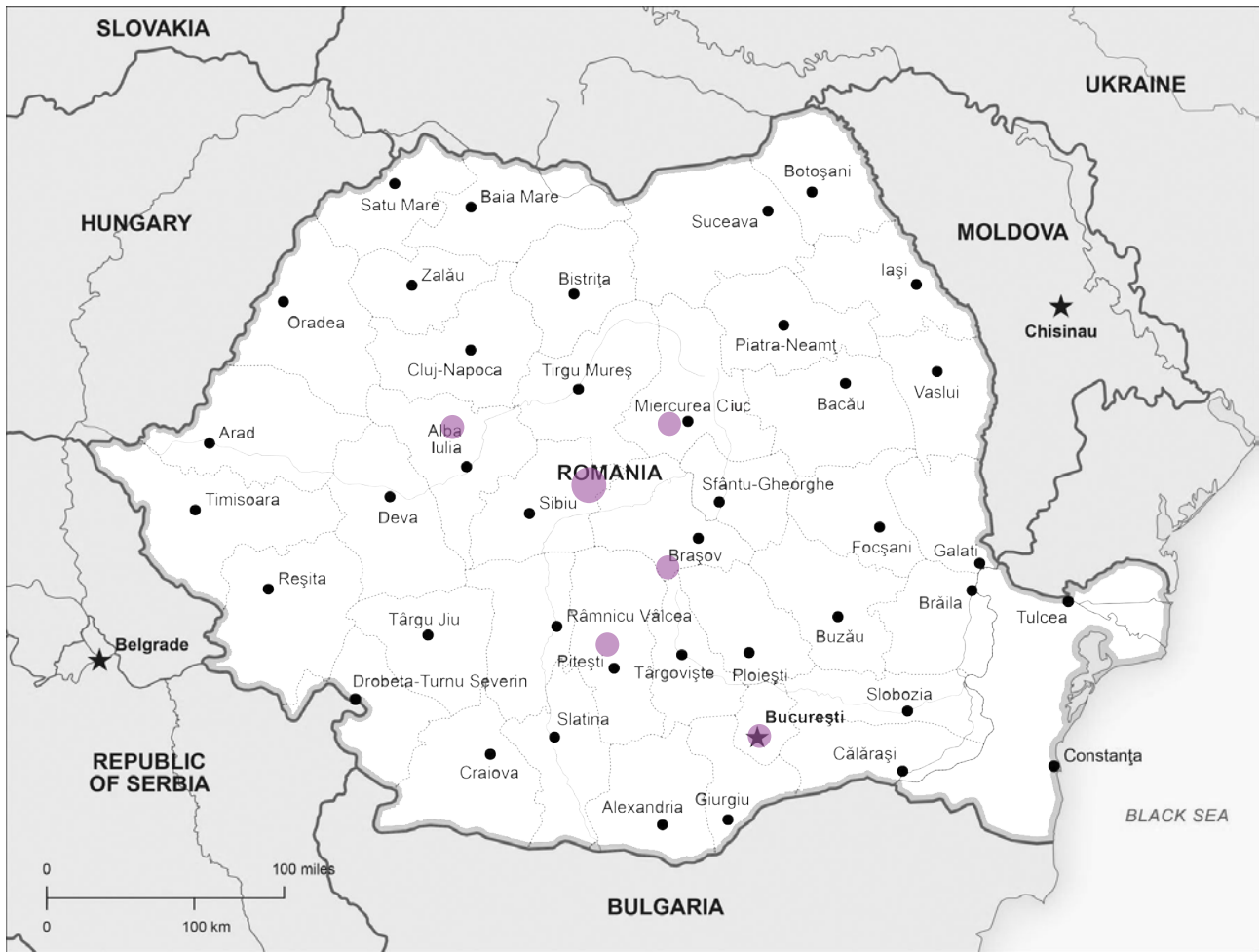
Summary

In the opening	Kengo KUMA <i>Vernacular Architecture</i> <i>Arhitectura vernaculară</i>	7
Dissertation extract	Adina DOBROTĂ, coord. by Prof.Dr.Arch. Ana Maria ZAHARIADE <i>Arieș Valley</i> <i>Valea Arieșului</i>	11
Summer school	UAUIM - TU Wien Summer School at Dealu Frumos 2018 Meinhard BREILING Marius VOICA <i>Summer Schools in the Danube Region: Student Projects as Means for Development in Depopulated Regions </i> <i>Școli de Vară în regiunea Dunării: proiecte ale studenților ca mijloace de dezvoltare în zonele depopulate</i>	55
	Petra IANU <i>Revitalisation project in Dealu Frumos Proiect de revitalizare la Dealu Frumos</i>	71
	Oana ROTARIU Toni CHERNEVA <i>Cycling through history. Towards explorational tourism Pedalând prin istorie. Către turism explorativ</i>	81
	Zih-Cing CHANG <i>Schnaps Genossenschaft - Abandoned spaces in fortified church will be reused as a liquor cooperative </i> <i>Schnaps Genossenschaft - Spații abandonate în biserică fortificată vor fi reutilizate pentru cooperativă de lichior</i>	99
	Lukas Valentin FLANDORFER <i>More than churches. An approach to develop strategies for the economical future of the villages of Transylvania </i> <i>Mai mult decât biserici. O abordare a dezvoltării de strategii pentru viitorul economic al satelor din Transilvania</i>	123
Dissertation extract	Ana JANTEA, coord. by Assoc. Prof. Dr.Arch. Ștefan BĂLICI <i>In-between borders. Influences from the Southern and Northern side of the Carpathians in the Upper Bran architecture</i> <i>Între hotare. Influențe din sudul și nordul Carpaților în arhitectura Branului de Sus</i>	135
Architectural guide	Köllő MIKLÓS <i>ÖAR - Architectural guide to integrate into the local specificity of the rural environment - extracts</i> <i>ÖAR - Ghid de arhitectură pentru încadrarea în specificul local din mediul rural - extrase</i>	167

	Silviu PREDA	179
	<i>Back to landscape for a contemporary architectural project</i> <i>Înapoi la peisaj pentru un proiect arhitectural contemporan</i>	
Studio projects	Horia DINULESCU	195
	<i>House in a given context. The "other home" on the seashore - G11E studio projects by Alexandra MÜLLER & Iulia ARMBRUSTER</i> <i>Locuință în context dat. „Celălalt acasă” de la malul mării - G11E proiecte de studiu realizate de Alexandra MULLER & Iulia ARMBRUSTER</i>	
	Gabriela TABACU Lorin NICOLAE Bogdan-Ioan GUIU	211
	<i>Community bicycle repair workshop - G26 studio project by Alin PĂTRUCA</i> <i>Atelier comunitar pentru reparat biciclete - G26 proiect de atelier de Alin PĂTRUCA</i>	
	Ștefan SIMION Emil BURBEA MILESCU Cristian BORCAN	227
	<i>Territorial Bucharest - G23 studio project Bucureștiul teritorial - G23 proiect de atelier</i>	
	Augustin IOAN	263
	<i>Vernacular architecture as an instance of tectonics Vernacularul ca instanțiere a tectonicii</i>	
Profile	Chiara BERTOLIN Agata MLECZKOWSKA Marcin STROJECKI	269
	<i>Tiepolo's frescoes back to the natural light: the assessment of environmental risks</i> <i>Frescele lui Tiepolo înapoi în lumină naturală: evaluarea riscurilor de mediu</i>	
Diploma project	Andreea-Ioana NICUȚ, coord. by Assist.Prof.Dr.Arch. Vladimir VINEA	297
	<i>(Re-)înființarea unui loc: comunitate intențională și fundație culturală la Poienărei, Argeș</i> <i>The (Re-)creation of a place: intentional community and cultural foundation in Poienărei, Argeș</i>	
Workshop brief	VVITA Erasmus + Project Team	305
	Marius VOICA Elena Cristina MÂNDRESCU Mihaela HĂRMĂNESCU Marina MIHĂILĂ Andra PANAIT Adrian MOLEAVIN Alexandra AFRĂSINEI Ioana E. ZACHARIAS VULTUR Georgică MITRACHE Magdalena STÂNCULESCU Vincenzo SAPIENZA Ivo CALIO Antonio GAGLIANO Gianluca RODONO Luca FINOCCHIARO Chiara BERTOLIN Markus SCHWAI	
	<i>Lofoten Peninsula and Eolian Archipelago: Vernacular architecture experiences in two Fisherman's villages</i> <i>Peninsula Lofoten și Arhipelagul Eolian: experiențe de arhitectură vernaculară în două sate de pescari</i>	
Calendar	C.S.A.V. 2018 activity calendar	325
Reviews. Bibliography	Silviu PREDA	327
	<i>Critical opinion to: Sebastien Marot, Sub-Urbanism and the Art of Memory</i> <i>Opinie critică la: Sebastien Marot, Sub-Urbanism and the Art of Memory</i>	

EUROPE





Vernacular architecture

Text written by Kengo KUMA for CSAV Journal, October 2017

I consider that “vernacular architecture” is about architecture where the relationship between people and materials is happily connected. I say so because buildings are made of materials and the materials had to be found and obtained near the site where the building would stand. Under such restriction, human beings and materials used to keep their conversations, which resulted in the architecture.

In the 20th century however, humans and materials were separated. Materials became available everywhere, and buildings all over the world began to be built with concrete and steel, which led to an ending of the good relation between people and matters.

Books on vernacular architecture had been written already in the 20th Century, but the arguments there were mostly about forms or styles, and discussions about materials were totally absent.

I would say that the most important “forgotten” material is wood. Wooden materials are born and rooted to the place. Furthermore, wood is so easy to work on that human beings have made their nests – the architecture – with wood since ancient times.

Professor Yoshichika Uchida, my most honored teacher from university, is the key figure who contributed to revive wooden buildings in Japan. Professor Uchida used to say habitually that as for the wooden structure, Romania and Japan would build the best ones. His theory is based on the existence of Carpathian Mountains and the Black Sea in Romania, and the Pacific Ocean in Japan. According to Professor Uchida, these topographical features functioned as barriers protected their culture of wood, and Romania and Japan have been able to nurture technology to produce unique wooden constructions in their closed fields.

Since I heard Professor Uchida’s theory, I’ve always dreamt of the beauty and uniqueness of Romanian wood architecture. Now, the mission assigned to both of us is that, having been born in the countries of wood, we truly revive our wooden buildings and create a modern version of vernacular architecture, which is tailored to the speed and density of our time.

Arhitectura vernaculară

text scris de Kengo KUMA pentru CSAV Journal, Octombrie 2017

Consider că „arhitectura vernaculară” reprezintă arhitectura în care relația între oameni și materialitate este una fericită. Spun asta deoarece clădirile sunt făcute din materiale de construcții, iar materialele trebuiau căutate și extrase din apropierea șantierului. Sub asemenea constrângeri, oamenii și materialitatea dialogau, ceea ce a generat arhitectura.

Cu toate acestea, în secolul al XX-lea, oamenii și materialitatea sunt separate. Materiale de construcții sunt disponibile oriunde, iar clădirile din toată lumea au început să fie construite din beton și oțel, ceea ce a condus la un final al bunei relații între oameni și materialitate.

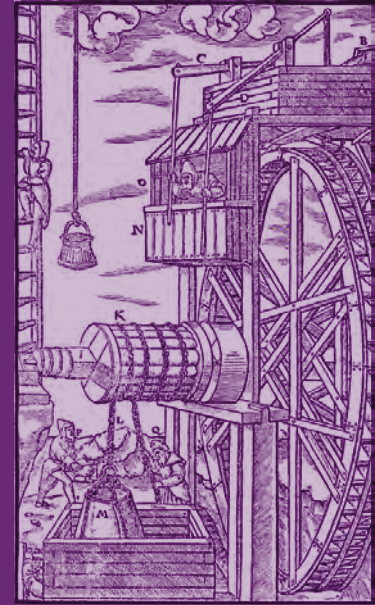
Cărți pe tema arhitecturii vernaculare au fost scrise deja în secolul al XX-lea, dar argumentele acolo au fost în mare parte despre forme sau stiluri, și discuțiile despre materiale erau total absente.

Aș spune că cel mai important material „uitat” este lemnul. Materialele cu lemn / din lemn sunt născute și înrădăcinate la fața locului. Mai departe, lemnul este atât de ușor de prelucrat, încât oamenii și-au făcut cuiburile – arhitectura – cu lemn din timpuri antice.

Profesorul Yoshichika Uchida, mentorul meu cel mai onorat din universitate, este figura cheie care contribuia la revigorarea clădirilor din lemn în Japonia. Profesorul Uchida obișnuia să spună că în ceea ce privește structura din lemn, România și Japonia le-ar construi pe cele mai bune. Teoria sa se bazează pe existența Munților Carpați și pe Marea Neagră în România și Oceanul Pacific. Conform celor spuse de profesorul Uchida, aceste caracteristici topografice care funcționau ca bariere își protejau cultura lemnului, iar România și Japonia au putut astfel să-și „ingrijească” tehnologia de a produce construcții unice în arealul lor închis.

De când am auzit teoria profesorului Uchida, întotdeauna am visat la frumusețea și unicitatea arhitecturii din lemn din România. Acum, misiunea acordată amândorura (arhitecți japonezi și arhitecți români), născuți fiind în țări ale lemnului, să revigorăm cu adevărat clădirile noastre din lemn și să creem o versiune modernă a arhitecturii vernaculare, adaptată / pliată / adecvată vitezei și densității timpurilor noastre.

coș de îngroșat
coș de tras de păr
fântână cu cai
jug pentru potcovit și stănoagă
piuă pentru lână (stofă)
moară de vânt
moară de apă
teasc de stors ceara
teasc pentru ulei
teasc pentru must
teasc pentru vin
teascul *Meschendorf*
oloiniță
șteamp aurifer
văltoare



"De Re Metallica", Georgius Agricola, 1555

Ideea acestui număr al **CSAV Journal** a apărut în timpul workshop-ului internațional VVITA Erasmus + 2018, odată cu vizita într-un vechi sat de pescari din Peninsula Lofoten, Norvegia. (v. pag. 305).

Este vorba despre un sit de patrimoniu vernacular de secol XIX, încă locuit, în care se poate observa o tipologie arhitecturală reprezentată de locuințe și ateliere de pescari sau de bărci din lemn, construcții parțial așezate deasupra malului stâncos al mării, pe stâlpi din lemn. Un loc aparte între aceste construcții îl ocupa un teasc de ulei de pește, cu toate mecanismele din metal și lemn încă funcționale. Se poate observa nu doar o tehnologie răspândită pe întreg teritoriul Europei și mai departe, dar și modul prin care patrimoniul tehnic rămâne un „reper mental” pentru mai multe comunități învecinate, loc de întâlnire și sistem ecologic, adaptat și noilor provocări climatice.

Pe teritoriul României, astfel de sisteme paleotehnice rurale din perioada medievală sau de secol XIX sunt expuse în muzee ale satului sau au rămas *in situ*. Poate acest patrimoniu tehnic rămas *in situ* să devină un răspuns post-industrial la revitalizarea satelor României ?

Ediția **CSAV Journal 2018** acoperă gama completă de lucrări academice care explorează situl rural și arhitectura vernaculară, între teorie și practică. Este vorba așadar despre o selecție de proiecte de atelier, școli de vară, lucrări de disertație, diplomă și cercetări doctorale pe subiectul arhitecturii vernaculare din anii universitari 2017 și 2018, realizate în Universitatea de Arhitectură și Urbanism „Ion Mincu”, București, alături de articole semnate de specialiști și cercetători internaționali.

Ioana ZACHARIAS VULTUR, coordonator



Vernacular technic heritage

The idea of this **CSAV Journal** edition appeared during the international workshop of VVITA Erasmus + 2018, while visiting an old fishermen village from the Lofoten Peninsula, Norway. (see page 305).

It is a 19th century vernacular heritage site, still inhabited, where one can observe an architectural typology represented by wooden housing and fishermen or boat workshops, buildings partially arranged upon the cliffy seashore, on wooden piers. A special place among these dwellings is the fish oil press, with all the metal and wood mechanisms still working. One can observe not only a technology spread all over the territory of Europe and beyond, but also the way in which the technical heritage remains a "mental landmark" for many neighbouring communities, a place for gathering and an ecological system, adapted also to the new climate challenges.

On Romanian territory, such rural paleotechnical systems dating back from the Medieval Age or 19th Century are exhibited in village museums or are still "in site". Can this "in site" technical heritage become a post-industrial answer to the revitalisation of Romanian villages ?

The **2018 CSAV Journal** edition covers the entire range of academic papers exploring the rural site and vernacular architecture, between theory and practice. Therefore it is about a selection of the 2017-2018 studio projects, summer schools, dissertation papers, diploma and doctoral research on the topic of vernacular architecture, created in or in the frame of the "Ion Mincu" University of Architecture and Urbanism, accompanied by articles signed by specialists or international researchers.

Ioana ZACHARIAS VULTUR, coordinator



Fig. 1. Participants from the International Summer School Dealu Frumos/Schönberg 2018. Participanți la Școala Internațională de Vară Dealu Frumos / Schönberg 2018.



Școli de Vară în regiunea Dunării: proiecte ale studenților ca mijloace de dezvoltare în zonele depopulate

Summer Schools in the Danube Region: Student Projects as Means for Development in Depopulated Regions

Dr. Rer. Nat. Tech. Meinhard BREILING

Technische Universität Wien, Landscape, Austria

Conf. Dr. Arch. Marius VOICA

“Ion Mincu” University of Architecture and Urbanism, Bucharest

meinhard.breiling@tuwien.ac.at / mvoika@yahoo.com

Keywords: *cultural heritage, landscape management, regional development, rural planning, thematic tourism, vernacular architecture*

Abstract

The paper describes process and progress during an international summer school in Dealu Frumos/Schönberg during May and October 2018. First there is a magnificent, underused landscape full of outstanding **cultural heritage** that abruptly lost important parts of its population at the end of last century and could not yet recover from that loss. Second there were 25 international students developing project ideas on how to promote development by **tourism**, agriculture or to improve infrastructure. Third there were supportive people, locals in Dealu Frumos, members of institutions in Sibiu County, academic and administrative staff of several universities, artists and freelancers that helped to create a good productive atmosphere. Several project ideas were born, all of them suited to improve life for resident people and to generate more income for locals. The costs to organize the summer school were reasonable as many of the resources needed were made available at limited costs. We propose to organize similar summer schools in other scarcely populated, rural areas of the Danube Region as a cost efficient means of rural and **regional development**.

Introduction

For more than 700 years the Germans were the dominant ethnic group in Transylvania or Siebenbürgen, primarily protestants, and responsible for building most of the approximately 250 fortified churches as defense line against aggressors from outside. Most churches are still owned by the Romanian Protestant Church. The “Stiftung Kirchenburgen”, a foundation dependent on donations primarily from people who left the country some time ago manages some 110 of the fortified churches.

While the objects in their totality are a unique **cultural heritage** of sacral buildings, worthwhile to be protected as an ensemble the reality of the region and country does not allow such an approach. The poor region did not recover from the loss of people and income. Means provided by international and national sources are scarce and only allow a priority setting to protect the best-preserved objects. One out of 35 or the seven most famous fortified churches became a UNESCO World Heritage Site. These churches get the most attention and visits. Some 100 objects in need for renovation are in hands of institutions or cultural associations who try to reestablish a meaningful use. The remaining majority of objects are ruins or under current conditions not useable buildings.

During July 2018, the International Summer School took place in Dealu Frumos/Schönberg in the very center of Romania. It gathered 25 students from the “Ion Mincu” University of Architecture and Urbanism in Bucharest, the host, Technische Universität Wien, and the Korean Gyeongsang National University in Jinju. In total 12 professors and/or supervisors from Romania, Austria, Germany, Japan and Korea were present and supported the students in their search for contemporary uses for selected lands, villages and houses of the region that became marginalized and widely neglected after the retreat of German settlers taking place during the final quarter of the last century. The purpose of the summer school was to introduce the students to: a) Sibiu Region, b) its population and ethnic groups that changed over time, c) its rich history that generated so much cultural heritage, d) the difficulties in acquiring funds for renovating buildings according to their needs, e) providing a general overview on landscape management practices and economic activities, f) introducing particular skills like renovating medieval fortresses and repairing buildings or “painting with the colors of the earth”.

Thereby, the participants did not only stay in Dealu Frumos. They visited Sibiu/Hermannstadt town, many sites in Sibiu County like the Museum Astra, the second largest free air museum in Europe (Breiling 2018). Here are hundreds of traditional farm houses and other **vernacular architecture** objects exhibited, providing models to find stimulation for one’s own project. The main work for students was to find a suitable idea that can help the local population and to elaborate this idea into a mature state. The realization of the idea is another problem. Many hindrances may oppose a direct implementation such as lacking resources and skills, not sufficient support by public institutions or changing priorities for initiative takers to name some of them.



Fig. 2. One out of the many fortified churches built by Transylvanian Saxons in *Brădeni/Henndorf*. Source: M. Breiling, July 13th, 2018.

Una dintre multele biserici fortificate construite de către saxonii din Transilvania în Brădeni / *Henndorf*. Sursa: M. Breiling, 13 iulie, 2018.



Fig. 3. Students and professors at Stiftung Kirchenburgen in Sibiu . Source: M. Breiling, July 9th, 2018. Studenți și profesori la sediul

Stiftung Kirchenburgen in Sibiu. Sursa: M. Breiling, 9 iulie, 2018.

Since 2004 the University of Architecture and Urbanism "Ion Mincu" Bucharest revitalizes one of the objects, the fortified church in Dealu Frumos/Schönberg as the seat of the Center of Vernacular Architecture and the place for numerous national and international summer schools.

The use of the fortified church in Dealu Frumos is restricted to the warm season as it would be too expensive to heat the object during winters. But at least during the summer season citizens and visitors can feel new life in the old village. And even more important is that continuously new ideas are coming up on how to improve the state of single objects, ensembles of built environment, or the magnificent cultural landscapes in the surroundings of Dealu Frumos. In this spirit 15 architects and planning students from TU Wien, four architect students from "Ion Mincu" University, and six students from agricultural engineering came to contribute in summer 2018.

The course preparation for TU Wien students started in May 2018 with lectures and experience reports from the region. Until June 2018 the students had to pre-formulate a design or development project which they wanted to follow during and after the summer school in Dealu Frumos/Schönberg. The period in the region, not only Dealu Frumos, but entire Sibiu county was up to one month, one facultative workshop and excursion week, one additional practitioner workshop "Hands on" organized by the Stiftung Kirchenburgen in Sibiu/Hermannstadt or self organized study trips in relation to the design or development project. During August and September 2018 students finalized reports. In addition to an internal report in September 2018, there was a public presentation in October 2018 in Sofia. The topics of design and development projects were manifold: students came up with their ideas on how to intensify the underused structures and to regain economic incentives for the further development of the region. Ideas of new uses comprised the fields of tourism, agriculture, manufacturing and improving the local and regional infrastructure.



Fig. 4. Dealu Frumos/Schönberg Summer Campus of "Ion Mincu" University of Architecture and Urbanism, Bucharest. Source: M. Breiling, July 4th, 2018. Campusul de vară al Universității de Arhitectură și Urbanism "Ion Mincu", București. „, Sursa: M. Breiling, 4 iulie, 2018.

Land use and income

Tourism in various forms - as architectural or **cultural heritage tourism**, religious tourism, history tourism, ethnic minority tourism, event tourism, cycling tourism and farm tourism - was selected by students as the most appropriate economic activity to revitalize the region and several ideas were born to strengthen tourism. From Austrian viewpoint, it was astonishing how little tourism developed in Transylvania despite the chain of superb attractions with some of them classified as world heritage. On a country average, the tourism intensity of an Austrian is ten times higher than the one of a Romanian (Eurostat 2018). An explanation for this is the comparatively poor quality of infrastructure and services, which is not yet very well developed. Few tourists generate insufficient funds for maintenance and operations and this is not only a hinder for the development of tourism but for any other industry in the region. Promoting tourism needs co-operation between initiative takers and the public and the participating students are possible mediators in this context.

Agriculture appealed in two ways, in form of a traditional agriculture and (ultra-) modern methods of smart farming. In 2013, we found 3.9 million farms in Romania and 2.8 million farms had less than one hectare production area. The tiny farms are primarily for subsistence food production and for the survival of the rural families. Family farms are 99% of all farms, and have 53% of the land, and they keep: 99% of sheep; 99% of goats; 99% of bees; 90% of cattles; 70% of pigs and 61% of poultry. A perceived problem for the continuation of agriculture is that 64% of farmholders were over 55 years (Baker-Smith 2016). The tiny farms are not entitled for agricultural subsidies within the EU. Another 1.04 million farms were classified small scale with more than 1ha and less than 10ha. Some 60,000 farms have a size of over 10ha and less than 100ha, 12,000 Romanian farms contain more than 100ha area and are the reminder of collective farm co-operatives established during the communist period (Page and Popa 2013). A few large-scale farms existed even before the communistic period when one particular large-scale farm unit - the property of the Czell family - comprised 2000ha and was one of the largest farms in Romania at the beginning of the 20th century (Czell, 2018).



Fig. 5. View at *Hosman/Holzmengen* village from fortified church. Source: M. Breiling, July 11th, 2018. Vedere spre satul *Hosman/Holzmengen* dinspre biserică fortificată. Sursa: M. Breiling, 4 iulie, 2018.

Traditional agriculture formed the unique cultural landscape of Transylvania with large-scale pastureland and small agricultural fields. Many shepherds move around with their flocks of several hundreds of animals thereby remaining traditional practices to manage marginal lands. Small scale fields, sometimes in difficult terrain are maintained by small scale peasants practicing circular resource economy and subsistence agriculture with few animals on limited land sometimes with less than a hectare agricultural fields. Ancient farming practices survived in the region due to lack of other alternatives. This in turn gave an important push to organic farming. During the period 2005 to 2012, the land of organic production tripled from 0.7 to 2.1% of area in Sibiu County and included more than 15,000 farmers or (TĂNASE, CĂRĂTUȘ-STANCIU 2016).

As a vivid contrast to traditional agricultural farming methods, the group of participating Korean students targeted new smart farming concepts aiming to digitize and rationalize farming.

Students from Korea study at the Smart Farm Centre in Jinju (Okyerere 2018) and tried to develop ideas of smart farming in a very different context (Qasim 2018). This includes very modern methods of animal husbandry and plant breeding. The mix with and innovation of traditional farming methods is a final aim.

The shapes of the buildings and the spirits of the past were in particular collected by the concepts from the students from "Ion Mincu" University. Hogeia focused on the spiritual identity of the fortified ensembles emphasizing the "mythical feeling of the place". The timeless shapes of the fortified churches kept alive for many centuries (Hogeia 2018). Different architectural solutions to solve practical problems by groups of Saxons and Romanians are in focus at another analysis (Oprescu, 2018). Yet another analysis reconstructed a fairytale image or elements of a dream landscape and opposed it to the reality found at the place today (Sabotnicu 2018).

Summary of student projects

The participants of the summer school hope to support local residents and influence regional decision makers. Many students were passionate in developing concepts and believed they can contribute to improve the wellbeing of the region. In the following, we present the main ideas of student concepts originating from TU Wien. The concepts are grouped around tourism and agriculture; manufacturing, renovation and tourism; concepts promoting themes and unifying regional assets; and general development projects.

Concepts combining tourism and agriculture

Touristic farming was one concept that combined both main ideas, tourism and farming. Why would you visit Dealu Frumos/Schönberg? Most people that are not familiar with Transylvania cannot answer this question and probably are here first time from this location. Two students started therefore to develop activity plans for tourists in the field of agriculture, how to care for animals and to gain animal products, or simply to wander and stroll around in the virgin landscapes and explore traditional lifestyles. In addition, the students assessed the economic potential of the likely tourists: how much they would be willing to pay for a week tourism on the Romanian countryside. Prices should be

fair and at the same time allow many locals to work and to earn some money. Additionally they provided also ideas how to host tourists in modular building structures as they did not assume that Austrian or Western tourists will stay in Romanian farmhouses (Barbu and Selistean, 2018).

Another idea of combining agriculture and farming was the idea of a liquor cooperative (*Schnaps Genossenschaft*). This idea rooted in the discussion with citizens of Dealu Frumos that many fruits are no longer harvested and that this resource should be better used. The fortified church of Dealu Frumos/Schönberg in which most lectures of the summer school took place had a few empty rooms. The concept was born to use some of them for a distillery producing plum brandy and a bar to consume the product. In addition the local need of plums can create a small market and give an incentive to harvest and process more products (Chang 2018).

Concepts promoting manufacturing, renovation of cultural heritage and tourism

Not only agriculture but also old manufacturing tradition can contribute to successful tourism products. A revitalization project in Dealu Frumos for handmade brick and tile production is a good idea to provide an income opportunity for several people. Becoming engaged in hand made brick and tile production means a possibility to renovate buildings and roofs in a closer way to the original settings of the built environment. Currently in many cases, new materials – not perfectly fitting – have to be imported for renovations. During a field trip, we visited another brick and tile production center in Apos. Prince Charles of England – as a relative of the Saxons in Transylvania - supports this manufacture and the demand in particular of tiles is by far higher than the supply. So the concept of one student to establish a new factory in Dealu Frumos has good chances to result in early returns (Ianu 2018).

Another idea to revitalize a forgotten manufacturing tradition in Dealu Frumos and to employ the resident Roma population is lime production. Lime is a building material that will be used for the renovation of older buildings like the fortified church in the village. A similar project of lime production exists in other parts of Romania. In addition an annual festival - targeted to tourists and village people alike - was proposed to exhibit the manufacturing skills of locals and also as a contribution to the social activities of the village (Harlesteanu 2018).



Fig. 6. Students

discussing with locals in Dealu Frumos. Source: M. Breiling, July 12th, 2018. Studenți discutând cu localnici în Dealu Frumos. Sursa: M. Breiling, 12 iulie, 2018.

Concepts promoting themes and unification of cultural heritage

The key concept to cluster common assets according to topics from nearby villages is a great idea. This creates a considerable higher regional value than just adding the single attractions. The goal has to be to create a network of possibilities, generated from the uniqueness of each single village while avoiding separation. Three items are in focus: the church, the village and the people. While tourism is the reason to earn money, the goal is to strengthen the economy and quality of life in the villages. Tourism will develop additionally because requirements such as landscape and cultural heritage are given (Flandorfer 2018).

Branding, marketing, cooperation with other organizations is essential if locals of Transylvania aim to increase their tourist numbers. Most of current tourists will start with UNESCO cultural heritage churches and the “branding” was done by getting acceptance and fulfilling requirements from UNESCO/ICOMOS. However, saving seven objects as world heritage is not enough to save the ensemble of churches. Here, one needs to go one-step further and to focus on the second or even third level objects to create new tourist products. An architectural circuit is a special highlight for architects and tourists interested in staying longer and going to depth in Transylvania and interested in additional features like fortified churches built during a certain historic period (Severin 2018).

Another project aims to promote sustainable tourism and at the same time boost the region’s infrastructure. The bicycle infrastructure has to build further out. Focal point is the village of Dealu Frumos, where the church has been renovated with efforts of “Ion Mincu” University. Here is the starting point for various exploration trips, by bike or hiking. To this end a camping site near the village is planned for cycling tourists. In addition a network between major cities nearby is considered: Sibiu, Brașov, Târgu Mureș, Cluj. These serve as starting points for foreign tourists. Another possibility is to connect and expand the EuroVelo Network towards Transylvania (Chervena, Rotariu 2018).

General development concepts

The concept of rural development by land use planning according to sectors was promoted by analyzing strength, weaknesses, opportunities and threats in a so called SWOT analysis. After that, the main idea is to focus on aims and actions regarding the expansion on each of the analyzed sectors. Mobility, building development, green and free space but also the social space are topics of the concept. The development area is Dealu Frumos in Transylvania, near the geographical center of Romania. The village population accounts for 500 people, Romanians and Romas with a few “Summer Saxons”, a group of retired German people that bought houses in the village. The fundamental objective is to bring more people in the area, both local and foreign. The main method that will be used, is to organize participation events, where experts and locals exchange information (Sassu 2018).

After the fortified church of Dealu Frumos became a summer campus of “Ion Mincu” University in 2004, another university campus could be established for TU Wien in another fortified church and thereby protect another fortified church. If many universities in Europe or even outside Europe would do so, a whole chain of scientific summer events would boost life and ideas into the region not only in summer. Similar to medieval times, Transylvania could regain the status as a scientific centre of Europe. A first idea for the TU Wien Summer Campus was projected for Pelișor/Magerau village. The first documentary mention dates from the middle of the 14th century. A major fire destroyed part of the village at the end of the 18th century. Currently Magarei has about 500 inhabitants. (Plankensteiner 2018)

Agricultural modernization concepts by Korean students

As a vivid contrast to traditional agricultural farming methods, the group of participating Korean students targeted new smart farming concepts aiming to digitize and rationalize farming. Students from Korea study at the Smart Farm Centre in Jinju (Okyerere 2018) and tried to develop ideas of smart farming in a very different context (Qasim 2018). This includes very modern methods of animal husbandry and plant breeding. The mix with and innovation of traditional farming methods is a final aim.

Reviving the past concepts by “Ion Mincu” students

The shapes of the buildings and the spirits of the past were in particular collected by the concepts from the students of “Ion Mincu” University. Hogeia focused on the spiritual identity of the fortified ensembles emphasizing the “mythical feeling of the place”. The timeless shapes of the fortified churches kept alive for many centuries (Hogeia 2018). Different architectural solutions to solve practical problems by groups of Saxons and Romanians are in focus at another analysis (Oprescu, 2018). Yet another analysis reconstructed a fairytale image or elements of a dream landscape and opposed it to the reality found at the place today (Sabotnicu 2018).

Summary

The ensemble of several projects provides more value than the sum of single project by each student. Financially weak regions can gain a lot from student workshops and student project work as a follow up of those workshops. The summer school in Dealu Frumos fulfilled its purpose: students experienced a region and its particularity. Local inhabitants and stakeholders got an outside feedback and several ideas to improve their situation with the possibility to earn more money. While some of the projects will not be realized due to budget constraints, other ideas - particularly the lower budget ones - may find locals interested in promoting these ideas. We propose that similar international classes, workshops and summer schools are repeated in other countries or parts of the Danube Region, in particular in the poorest regions where the work of students can find the most appreciation.

An important task is to integrate students and their initiatives within the available frameworks to promote general development in the region. University co-operation such as the European ERASMUS network can provide an initial basis to prepare international joint student courses. Students in turn generate new thinking where local stakeholders get stuck in prevailing challenges. They do not care too much for the likely problems of problem realization and lack disappointing experiences from previous projects. Thereby, the range of perceivable possibilities opens up. According to our opinion this approach can be institutionalized and support institutional networks like the working groups and priority areas of the Danube Region Strategy often lacking labor force for ground work. This may contribute to alter local and regional capacities and to think about hidden potentials. With this article and experience report, we further hope to stimulate more colleagues to contribute with similar actions and course developments in other less privileged areas of the Danube Region and hope for additional chances to undertake more courses in this direction.

Acknowledgement

We would like to thank all participating resource persons who shared their knowledge with the participating students. In particular we thank Sebastian Bethge - Stiftung Kirchenburgen (Bethge 2018), Martin Czell - school teacher in Carinthia, Hanna Derer - professor at "Ion Mincu" University of Architecture and Urbanism (Derer 2018), Liviu Gligor (Gligor 2018) - professor "Ion Mincu" University of Architecture and Urbanism, Koji Harashina - professor at Iwate University (Harashina 2018), Mihaela Hărmănescu - VicePresident for Cultural Landscape at Rper and lecturer at "Ion Mincu" University of Architecture and Urbanism (Hărmănescu 2018), Kim Hyeon Tae - professor at Gyeongsang National University and director Smart Farm Centre in Jinju, Korea (Kim 2018), Milan Racek - artist, writer, supervisor of "colors of the earth" (Racek 2018); Willy Schuster - peasant in Mosna/Meschen (Schuster 2018); Mirela Weber - architect Motis/Mortendorf (Weber 2018) and Ioana E. Zacharias Vultur, architect, teaching assistant at "Ion Mincu" University of Architecture and Urbanism, scientific coordinator of CSAV Research Center and editor of Vernacular Architecture (Zacharias -Vultur, 2018). Their many impulses can be found in the work of students.

A great support to lift project ideas towards implementation is the co-operation with stakeholders and administrators of the European Union Strategy Danube Region (EUSDR). The project ideas are in line with several pillars of the EUSDR. Claudia Singer and PA 10 capacity building (Singer 2018), invited three participants of the summer school Dealu Frumos to present the results (Voica et al.) at the 7th annual stakeholder forum in Sofia (EUSDR 2018). Erwin Szlezak and PA 6 (Szlezak 2018), Barbara Willsberger and PA 9 investing in people and skills (Willsberger 2018) provided preparatory lectures to inform students on the work of the EUSDR. Additionally Erwin Szlezak prepared the ground to spread the information of the summer school in Dealu Frumos at two conferences of the working community of the Danube countries (Arge Donauländer).

Finally we would like to mention that the ERASMUS plus Higher Education Mobility Agreement (ERASMUS 2018) enabled the authors to hold contacts and to prepare the summer school in Dealu Frumos.

References:

Barbu and Selistean, 2018. Touristic Farming: why would you visit Dealu Frumos? Tourist program for exploring virgin landscapes and traditional lifestyles. (<http://www.breiling.org/lect/df-web/students/181001/barbul.pdf> (accessed April 3rd, 2019)

Baker-Smith K. (2017). Farm succession in Romania: Who will take over the lands from an aging peasant generation? Eco Ruralis, Cluj. https://www.accesstoland.eu/IMG/pdf/farm_succession_report_eco_ruralis_en_web.pdf (accessed April 6th, 2019)

Bethge S. (2018). Die Stiftung Kirchenburgen. <https://kirchenburgen.org/> (accessed April 5th, 2019)

Breiling M. (2018). Documentation of Summer School Dealu Frumos 2018. Photos Study Tour to the International Summer School Dealu Frumos July 9th to July 14th, 2018. <http://www.breiling.org/lect/df-web/> (accessed April 7th, 2019).

Derer H. (2018). The Fortified Churches of the Transylvanian Saxons: Zoom In, Zoom Out. <http://www.breiling.org/lect/df-web/vortraege/180709/derer/index.html> (accessed April 5th, 2019)

Chang Z. C. (2018). Liquor Cooperative - Schnaps Genossenschaft. [http://www.breiling.org/lect/df-web/students/181001/20180926%20Design-Liquor%20Cooperative_Audrey%20\(NEW\).pdf](http://www.breiling.org/lect/df-web/students/181001/20180926%20Design-Liquor%20Cooperative_Audrey%20(NEW).pdf) (accessed April 3rd, 2019)

Czell M. (2018). History of Czell family in Transylvania. Personal communication during summer school in Dealu Frumos, July 2018.

Chervena T., I. Rotariu (2018). Cycling Through History: Towards Sustainable Explorational Tourism http://www.breiling.org/lect/df-web/students/180830/KI_Entwerfen_Schonberg_Rotariu_Cherneva.pdf (accessed April 2nd, 2019)

ERASMUS (2018). Mobility project for higher education students and staff. https://ec.europa.eu/programmes/erasmus-plus/programme-guide/part-b/three-key-actions/key-action-1/mobility-higher-education-students-staff_en (accessed April 2nd, 2019)

EUSDR (2018). The 7th annual forum on the EU strategy for the Danube Region. Oct. 18th 19th, Sofia, Bulgaria <https://www.7danube-forum-sofia.eu/> (accessed April 6th, 2019)

Eurostat (2018). Nights spent at tourist accommodation establishments - monthly data [tour_occ_nim] <https://ec.europa.eu/eurostat/web/tourism/data/database> (accessed April 2nd, 2019)

Flandorfer L. (2018). More than churches. An approach to develop strategies for the economical future of the villages of Transylvania. http://www.breiling.org/lect/df-web/students/181003/Concept_Flandorfer.pdf (accessed April 4th, 2019)

Gligor L. (2018). The restoration process of the fortified church in Dealu Frumos. https://www.uauim.ro/en/events/romanian_spanish_restoration_workshop/ (accessed April 5th, 2019)

Harashina K. (2018). Transitions in agricultural landscapes of Japan. http://www.breiling.org/lect/df-web/vortraege/180712/harashina_jp.pdf (accessed April 5th, 2019)

Härmănescu M., Cristina Enache (2016). Vernacular and Technology: In Between. Procedia Environmental Sciences 32 (2016) 412 – 419. <https://www.sciencedirect.com/science/article/pii/S1878029616001961> (accessed April 5th, 2019)

Harlesteanu A. (2018). “Piatra si Foc” Bringing an old, forgotten tradition back to life which can activate the city and strengthen the community by including the Roma minority in the process. <http://www.breiling.org/lect/df-web/students/181003/harlesteanu.pdf> (accessed April 3rd, 2019)

Hogea L. (2018). The Spirit of the Fortified Churches. <http://www.breiling.org/lect/df-web/students/uauim/hogea.pdf> (accessed May 3rd, 2019)

Ianu P. (2018). Revitalization Project in Dealu Frumos - Hand Made Brique Production. http://www.breiling.org/lect/df-web/students/180830/petra_ianu_compressed.pdf (accessed April 3rd, 2019)

Kim H.T. (2018). Facility Environment Bio-Systems Lab. : F.E.B.S. Lab.Introduction. http://www.breiling.org/lect/df-web/vortraege/180712/febs_kim.pdf (accessed April 5th, 2019)

Okyere F. (2018). Introduction To My Research Work In FEBS LAB. <http://www.breiling.org/lect/df-web/vortraege/180712/okyere.pdf> (accessed April 5th, 2019)

- Page N., R. Popa (2013).** Family farming in Romania. Fundația ADEPT Transilvania www.fundatia-adept.org Saschiz, October 2013. https://ec.europa.eu/agriculture/sites/agriculture/files/consultations/family-farming/contributions/adept_en.pdf (accessed April 2nd, 2019)
- Plankensteiner M. (2018).** Analysis, action and an architectural design for an education campus in Pelisor/ Magarei. http://www.breiling.org/lect/df-web/students/180919/plankensteiner_1107070_19092018.pdf (accessed April 4th, 2019)
- Qasim W. (2018).** Greenhouse automatic control system. <http://www.breiling.org/lect/df-web/vortraege/180712/waqas.pdf> (accessed April 5th, 2019)
- Racek M. (2018).** Colors of the Earth. <http://www.soilart.eu/> (accessed April 5th, 2019)
- Sabotnicu S. (2018).** Saxon houses – features and meaning – yesterday and today <http://www.breiling.org/lect/df-web/students/uauim/sobotnicu.pdf> (accessed May 3rd, 2019).
- Sassu A. (2018).** Rural Development Let's make Dealu Frumos “mișto” again. http://www.breiling.org/lect/df-web/students/sassu/Sassu_Andrei_01328183_Dealu_Frumos_Concept.pdf (accessed April 4th, 2019)
- Schuster W. (2018).** Too small for subsidies. In German: Zu klein für Subventionen. <https://www.biorama.eu/bio-landwirtschaft-rumaenien/> (accessed April 5th, 2019)
- Severin B. (2018).** Development of specialized architecture tours in Transylvania. http://www.breiling.org/lect/df-web/students/180912/20180910_BiancaSeverin_web.pdf (accessed April 4th, 2019)
- Singer C. (2018).** Building up institutional capacity. Priority area 10 of the Danube Region Strategy <https://www.danube-capacitycooperation.eu/contact> (accessed April 6th, 2019)
- Szlezak E. (2018).** Sensibly use and carefully protect our soil in the Danube Region. In: Land & Raum 2/2015 11 <http://www.breiling.org/lect/df-web/vortraege/180516/szlezak.pdf> (accessed April 6th, 2019)
- Tanase M., Caratus-Stanciu M. (2016).** Organic Farming in Sibiu County, Romania. In Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development Vol. 16, Issue 4, 2016 PRINT ISSN 2284-7995, E-ISSN 2285-3952. <http://managementjournal.usamv.ro/index.php/scientific-papers/1314-organic-farming-in-sibiu-county-romania-1314> (accessed April 2nd, 2019)
- Voica M., Z.C.Chang, L.Flandorfer (2018).** Presentation of the results of the international summer school in Dealu Frumos at the 7th annual forum on the EU Strategy for the Danube Region. Oct. 18th 19th, Sofia, Bulgaria. http://www.breiling.org/lect/df-web/vortraege/181017/sofia_df.pdf (accessed April 7th, 2019)
- Willsberger B. (2018).** EUSDR Priority Area 9 “Investing in People and Skills” <http://www.breiling.org/lect/df-web/vortraege/180606/willsberger.pdf> (accessed April 6th, 2019 (accessed April 6th, 2019))

Summary



In the opening Dissertation extract	Kengo KUMA Adina DOBROTĂ , coord. by Prof.Dr.Arch. Ana Maria ZAHARIADE
Summer school	UAUIM - TU Wien Summer School at Dealu Frumos 2018 Meinhard BREILING Marius VOICA Petra IANU Oana ROTARIU Toni CHERNEVA Zih-Cing CHANG Lukas Valentin FLANDORFER
Dissertation extract	Ana JANTEA , coord. by Assoc. Prof. Dr.Arch. Ștefan BĂLICI
Architectural guide	Köllő MIKLÓS Silviu PREDA
Studio projects	Horia DINULESCU Gabriela TABACU Lorin NICOLAE Bogdan-Ioan GUIU Ștefan SIMION Emil BURBEA MILESCU Cristian BORCAN Augustin IOAN
Profile	Chiara BERTOLIN Agata MLECZKOWSKA Marcin STROJECKI
Diploma project	Andreea-Ioana NICUȚ , coord. by Assist.Prof.Dr.Arch. Vladimir VINEA
Workshop brief	VVITA Erasmus + Project Team Marius VOICA Elena Cristina MÂNDRESCU Mihaela HĂRMĂNESCU Marina MIHĂILĂ Andra PANAIT Adrian MOLEAVIN Alexandra AFRĂSINEI Ioana E. ZACHARIAS VULTUR Georgică MITRACHE Magdalena STÂNCULESCU Vincenzo SAPIENZA Ivo CALIO Antonio GAGLIANO Gianluca RODONO Luca FINOCCHIARO Chiara BERTOLIN Markus SCHWAI
Calendar Reviews.	C.S.A.V. 2018 activity calendar
Bibliography	Silviu PREDA