

"University co-operation in the Danube Region: student projects as means to memorize landscape history"

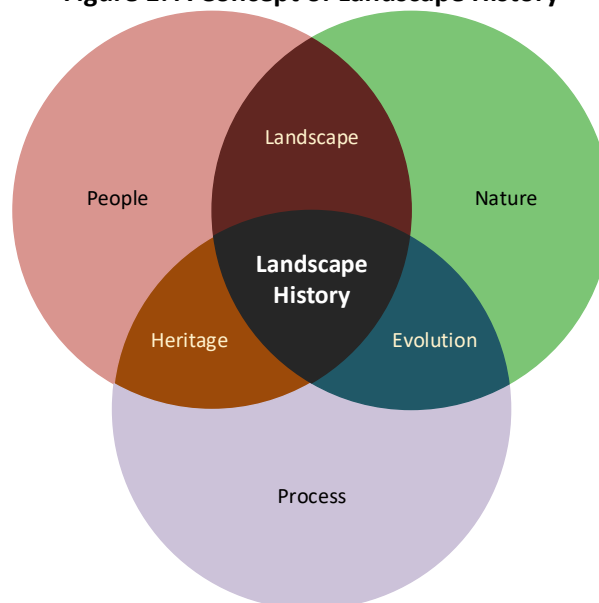
Meinhard Breiling, TU Wien, Landscape

e-mail: meinhard.breiling@tuwien.ac.at

Why memorizing landscape and exploring its history?

People and nature constitute landscape. Landscape is dynamic and in continuous change. Every landscape is unique and the result of millions of processes leading to the contemporary result. Understanding key processes will help us to shape and protect landscapes in a wanted direction and to support the effectiveness of land uses or ecosystem services. Thereby we learn to restore or alter biodiversity or to protect the functions of soils according their properties in wetlands, grasslands, agricultural fields, coastal areas or mountain regions. We consider human heritage and constructions like circular ditches from bronze age, Roman viaducts, medieval fortresses, elegant castles or formal gardens depicting scenery fashions over centuries as particular assets of landscapes, valuable for tourism or identification of locals with their surroundings. Knowing landscape history and appreciating the values of landscapes will help to keep eco-systems functional and maintain built environment to our best future use.

Figure 1: A Concept of Landscape History



In figure 1 we depict a conceptual model of what landscape history is: a combination of three foundations, namely people, nature and process. The three combinations of two foundations merge in landscape, evolution and heritage. This leads to the final overlapping of foundations and combinations in landscape history.

Landscape history is thereby a comprehensive term to analyze and describe landscape dynamics and landscape changes in the Danube Region one of the EU macro regions. Nature and people alike change the appearance of landscape but to different degrees depending on the power to push processes. Depending on interests of citizens, skills and funds available, humans have possibilities to interact with landscape. People can accelerate resource depletion but also counter adverse impacts

on landscape like floods and disasters. Lacking many or most of those human resources like this is the case in Lower Income Danube Countries means that human actions will diminish while natural forces regain strength to modify and change landscapes.

During different periods the natural and human forces to introduce or counter changes in landscapes are highly diverse. What is possible during one period was not necessarily possible in the previous period and will eventually not be possible in the next period. Analyzing the differences of defined landscapes like changes in population, related human actions, safeguarding or forgetting cultural heritage, maintaining and increasing biodiversity by using [cultural] landscapes, protecting ecosystems for endangered species and countering natural challenges like disasters by the knowledge of landscape and reassessing the governance regimes at a given time can therefore explain why we face particular challenges today but not in other periods or vice versa.

The landscape experienced today roots in previous developments and history going back to natural processes covering million to thousands of years and human processes reaching back centuries or decades. The results provide advantages or sometimes disadvantages for current populations in their wanted use of landscapes. If we target concerned changes, stable conditions or avoiding unwanted change, in all cases we need to consider time-place relationship of landscape processes and use it in the contemporary settings under prevailing policies and governance.

Who are the target groups we have in mind?

- Priority Area 6 of the Danube Region Strategy, stakeholders, policy makers and administrators
- Locals in disfavored landscapes experiencing outmigration, financial decline and shrinking services lacking own resources to manage their problems in a proactive way.
- Young actors studying at universities, potential multipliers of ideas and providing them an arena to develop their skills throughout the economically disfavored regions in the Danube Region.

We try to join three distinct groups with contrasting backgrounds. They are all part of the same problem in a real physical landscape which is target to change. If we want to solve such a problem or change landscapes in a proactive way, we need these groups to interact.

The Danube Region Strategy and its priority areas such as 6 “To preserve biodiversity, landscapes and the quality of air and soils” need appropriate case studies to assess and explain landscape dynamics, landscape change and landscape history. The changing roles of humans and nature in landscapes has to be highlighted. Soil loss f. e. can be forced like in the case of urban development projects with sealed areas or by certain agricultural techniques not suitable to maintain long term soil quality or voluntary, when landscapes are economically no longer attractive for humans and abandoned. Biodiversity can be much higher in marginally cultivated agricultural lands than in nature. Biodiversity is much higher in populated urban areas with limited soil coverage than in large monocultural agricultural landscape. However, periods ago there might have been opposite circumstances in landscapes. For this we need cases and projects in sample landscapes in the Danube Region.

The locals are in place and they are the key to any change in the landscape. If there are no (longer) people in place we cannot have bottom up projects in mind. Several or many projects in the Danube Region will lead to more case studies and better comparisons between chosen strategies. This means co-ordination efforts or even programs on a national, or Danube Region scale. Therefore, during the last decade the EU countries in the Danube Region including the neighboring countries built up

structures for regional cooperation and programs including landscape, biodiversity and climate change generally presented by the priority area six of the Danube Region Strategy (EUSDR 2010). Economically weak areas suffer most from an ageing of their people. The young and fit ones move, while the old and weak ones stay. For this reason, it is very important to get periodically access to young people from outside and their fresh ideas. Offering university courses with the aim to support the weakest parts of the population with project ideas in their reach is considered a valuable exercise for all involved parties. Students get firsthand experience on the daily life situation in less favored landscapes. The locals get a plan on what they could do. The administrators of the Danube Region Strategy get input from students and academia at no or marginal extra costs.

How to memorize a landscape?

There are several methods that can be applied. First, we need to identify the problems. Second, we must make a project with defined tasks and actors with a plan that fits to available resources. Third, we must transform from the actual state to a wanted future state or describe under what conditions such a transformation is feasible or why it is currently not achievable.

In our case we propose to apply summer schools, university courses, seminars and conferences to rise awareness and to provide room for wanted landscape awareness and accordingly landscape change. The background of students can be very different. The targeted professions of students have all a stake in the physical landscape: agronomists, architects, archeologists, artists, biologists, climatologists, engineers, foresters, geographers, limnologists, sociologists, traffic planners, urban planners or other professions not mentioned here. So far, we can provide two examples from the Danube Region, one example from 2018 and a summer school in Dealu Frumos and a second example from the Danube Delta from 2019 and hope to contribute with supplementary efforts in future. The invited students took up self-defined problems in interactions with locals.

Figure 2: Students analyzing landscape history in Dealu Frumos



Source: Author July 2018

In the case study of Dealu Frumos, a mixed student group from three universities went to the region of fortified churches in Transylvania originating from a period back 700 years. Once in history this landscape provided a refuge for thousands of migrants fleeing from religious prosecution in central Europe. A massive decline in population and human activities since the change of system from

communist to free market leads to marginalization and neglect of former intense processes in the landscape. Outstanding cultural heritage cannot find a modern use like in other wealthier regions and is slowly degrading. The designed projects give new use to the discontinued function. They name possible actors to promote such projects (Breiling et Voica 2019).

In the case study from the Danube Delta, student groups from two universities went back to recent history and the formation of labor camps in remote parts of the Danube Delta some 70 years ago. Hundreds if not thousands of people died through forced labor in harsh conditions. Since the 1970ies these camps are abandoned but authorities tried to hide and to forget their existence. Only recently the surviving victims claim a culture of remembering and instead of hiding. The built elements in relation to the forced work are highlighted. Concrete structures in Ultima Frontiera a former labor camp endured the ecological restauration efforts of the UNESCO Biosphere Reserve. They could only be built during a period of a drained landscape and seem bizarre in the current marsh and wetland landscape. In contrary, the barracks of the prisoners built from natural materials are today invisible as all-natural materials went back to the delta and favored a culture of forgetting and hiding.

Figure 3: Building a shelter like locals did with natural materials in Letea, Danube Delta



Source: Author October 2019

These projects would not exist if we would not direct summer schools or courses into landscapes with marginal economy where inhabitants are on retreat. Loosing the inhabitants means the impoverishment of landscape resulting from a loss of activities and human processes particularly in cultural landscapes. This in turn further results in a loss of biodiversity, neglect of soil management, lost eco-system services, a lack of human control often leading to illegal waste dumping, an increased danger of poisoning eco-systems through the existence of chemical time bombs in unattended land which will limit the resilience and usability of future landscapes. Keeping more people at place or improving livelihoods for the people in place by generating hope through the design of new projects, remembering the good or evil past in different historical periods, confronting with innovative ideas, will contribute to the sustainability of landscapes and the entire Danube Region.

What future projects to memorize landscape are feasible?

The poorest inhabitants of the Danube Region can see more prospects for a better future in unique landscapes if courses and summer schools are multiplied at other places throughout the Danube Region. Depending on the limited financial resources these projects can be small but they will show activity and stimulate citizens in need of communication and interaction with the outside world. The policy makers and stakeholders of the Danube Region can become important facilitators of small-scale projects in periods when only inadequate funds can be distributed.

The scaling of elements in landscapes were widely different in previous periods. Hedges, alleys, green infrastructure, but also agricultural cultivars and food varieties were different in historic landscape periods. Lack of fertilizers, pesticides, machinery forced a different landscape management. Agricultural imports and exports were limited and productivity was low. Lack of external heating sources based on fossil fuels widely forced the use of renewable biomass. Any suitable landscape had to be used for human alimentation. Exploitation of local resources to a maximum had also an impact to biodiversity, soil fertility and the carrying capacity of the landscape. Sometimes in wanted directions, other times in adverse directions. We cannot judge landscapes uniformly, but need to target situations at a period and reconsider the circumstances at a time. From there we have to reassess the historical situation to our period with a changed value or goal system.

Historical landscapes were optimized for local food supply and local exploitation mainly as a necessity to survive while they often serve today as models for sustainable practice based on tradition in an era of free trade and imported resource abundance. Today we have still much of historical knowledge of processes combined with possibilities to maintain the landscapes according to historical principles. With shrinking populations or depopulation, we forget ever more parts of historical knowledge eventually useful as innovations in future periods with stricter resource concerns than today. The Danube Region still provides many outstanding examples of unintended landscape conservation where history lasts longer than in other European regions. Only since recently, these landscapes undergo drastic changes by discontinuation of human processes. There is new room for natural landscape processes that were suppressed for long time by human action. Future student projects can target those issues.

References

Breiling M., M. Voica (2019). Summer Schools in the Danube Region: Student Projects as Means for Development in Depopulated Regions. <http://csav.ro/> and http://csav.ro/wp-content/uploads/2019/07/IMG_1137.jpg (Access 30 March, 2010)

Breiling M., M. Voica (2019a). Ultima Frontiera – Ultimate Border. Design Studio Periprava Danube Delta. <http://www.breiling.org/lect/uf-web/UltimaFrontiera.pdf> (Access 30 March, 2010)

European Commission (2010). European Union Strategy for Danube Region. Communication from the commission to the European Parliament, the Council, the European Economic and Social Committee of the Regions. Link:

https://ec.europa.eu/regional_policy/sources/docoffic/official/communic/danube/com2010_715_danube_en.pdf (Access 30 March, 2010)

Strategie der Europäischen Union für den Donaauraum

https://de.wikipedia.org/wiki/Strategie_der_Europ%C3%A4ischen_Union_f%C3%BCr_den_Donaauraum (Access 30 March, 2010)