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“Dry stone perspectives: challenges after the UNESCO inscription”

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Dry stone heritage of Konavle (Croatia)

Summary :

This paper will present the initiative "Dry Stone Heritage of Konavle". Konavle region with its specific geographical and strategic location has been at the crossroads of many different states and cultures. To this day, Konavle retains its dominant rural character, as well as agriculture with its low-intensity character. Given the Mediterranean natural and cultural context, agricultural land use is manifested in the various dry stone features used in fortification building, enclosing and terracing of agricultural land and building temporary residences. Today, many of those remain hidden behind a layer of vegetation as the agriculture is being abandoned. Rural landscape of Konavle and particularly its dry stone wall heritage has not yet been a subject of any thorough research and hence failed to be a subject

of protection, planning and management. However, in spite of the abandonment of dry-stone structures their popularity is growing due to international trends.

The authors of this work recognized the potential of this unexplored and neglected element of the local heritage so the main aim of this work was comprehensive analysis of dry stone features and popularization of the topic. The research involved desk and field research. Desk research consisted of GIS mapping and literature, photographic and cartographic sources analysis. Field work involved a detailed tour of all 32 villages, whereas landscapes, landscape structures and buildings were reconnoitered and photographed. Field research has been conducted continuously from 2015 onwards with airplane and drone overflights involved. The dry stone heritage of Konavle is presented through typology of stone walls structures, construction details, buildings and landscapes (supported by descriptions, photographs and maps).

Keywords Konavle rural landscape, dry stone wall heritage, Mediterranean agricultural landscape, Croatian Adriatic

1. Introduction

Konavle region with its specific geographical and strategic location has been at the crossroads of different cultural and political influences. As an important strategic and geopolitical location, it encountered a number of civilizations trading and mixing on its mountainous borders. For a long time, the only road that connected Western and Central Europe with North Eastern Europe and Middle east passed through Konavle. Consequently, it created a very complex cultural and socioeconomic environment which left a trace in the landscape.

Konavle is divided into 32 villages whose borders date back to the 15th century and have only slightly changed till this day. Geomorphologically it is an extension of the Dinaric karst mountainous area. Stretching over 210km², Konavle encompasses the land from the Adriatic sea, across the plain karst field all the way to the mountain of Sniježnica.

Due to favorable water regime and very fertile karst field, which vastly extends from east to west, Konavle has been populated and thriving as early as Ancient Greek times. Greeks, Romans, Byzantine empire, Dubrovnik Republic, Napoleon's France and especially Austrian-Hungarian Empire left an indelible (till recently) mark on the landscape and its very formation. Being a predominantly rural area to this day, the landscape has been formed accordingly.

Several centuries long rule of Dubrovnik republic in Konavle resulted in great economic progress especially in agriculture. Precisely at that time in the 15th and 16th century the biggest and the most elaborate land division happened. 'The Statute of Dubrovnik Republic' (Šoljić et al, 2002) serves as a proof to the latter, and is a very important historical document that shows that the cultivation of land and drystone walling certainly dates back to the 15th century. It prescribes certain regulations when forming them and clearly defines the requirements of both neighbors when it comes to its maintenance.

Konavle reached the peak of its agricultural production in the mid to late 19th century when wine production was a lucrative business. At the time of wine

conjecture with phylloxera disease destroying the vineyards of France and other leading countries of Mediterranean wine production, planting vines became extremely popular alongside the whole Croatian coast. Precisely at that time the majority of drystone walls, especially supporting walls, terraces etc., were built in an effort to use every possible bit of arable land. But it only lasted for about 20 years until the disease reached Croatia too, forcing a lot of people to emigrate overseas.

Soon after the recovery, the Austrian Hungarian empire opened its doors to Italian wines and limited Dalmatian production which, as a consequence, was followed by a large abandonment of land.

In shaping the landscape, man used materials from its immediate surroundings – mainly stone. Drystone walling had been used in fortification building, enclosing and terracing the agricultural lands and building temporary residences. But many of those remain hidden behind a layer of vegetation due to agricultural abandonment.

Nowadays, new developmental trends are emerging and tourism has a leading role. The whole area is slowly changing, old houses are being reconstructed, accommodation unit numbers are increasing, and new small estates are opening. But with that also comes the introduction of new materials not in accordance with the local practice which doesn't respect the traditional features. Contemporary agricultural practices also pose a severe threat to traditional land use.

Rural landscape of Konavle, particularly dry stone features, has not yet been a subject of any research or documenting and hence failed to be a subject of protection, planning and management. However, in spite of the abandonment of dry-stone structures their popularity is growing due to international initiatives and researches, NGO activities, development of GIS and drone technologies, inclusion in the higher school's curricula but also the need for enhancing the tourist offer. The authors recognised the potential of this unexplored element of the local heritage so the main aim of this work was a comprehensive analysis of drywall features.

2. Methodology and materials

The research integrated two finals (Trojanović, 2015; Sturica, 2016) and one graduate thesis (Trojanović, 2017). The work involved desk and field research. Desk research consisted of literature, photographic and cartographic (present and historical) sources analysis. Desk work encompassed usage of GIS as well - collecting existing GIS and making new spatial and cartographic data. Existing GIS data encompassed (1) digital orthophoto maps 1968¹ - today², (2) Topographic map 1:25.000³, (3) Croatian base map 1:5.000⁴, (4) Habsburg Empire - Cadastral maps⁵ and (4) EU Digital terrain model⁶.

Field research involved a detailed tour of all 32 villages, whereas landscapes and features were reconnoitered and photographed. It has been conducted continuously from 2015 to the present and it included terrestrial, airplane and drone photography. Field data collection was also done with help of the local connoisseurs and narrators and social media⁷ which helped in gaining valuable information.

The dry stone heritage of Konavle is presented through typology of stone wall structures, buildings and landscapes. The proposed framework is a synthesis of several earlier approaches in classification and typology of agricultural landscapes, terraces, enclosures and dry stone walls: Grove and Rackham (2003), Andlar et al. (2017 and 2018), Šrajcar (2019) and Andlar and Aničić (2018).

¹ <https://ispu.mgipu.hr> (Accessed: 12 Jan 2022).

² <https://geoportal.dgu.hr/services/dof/wms> (Accessed: 12 Jan 2022).

³ <https://geoportal.dgu.hr/services/tk/wms> (Accessed: 12 Jan 2022).

⁴ <https://geoportal.dgu.hr/services/hok/wms> (Accessed: 12 Jan 2022).

⁵ Arcanum Historical Maps Web Portal URL: <https://maps.arcanum.com/en/> (Accessed: 12 Jan 2022).

⁶ <https://land.copernicus.eu/imagery-in-situ/eu-dem> (Accessed: 12 Jan 2022).

⁷ The Facebook page 'Dry stone heritage of Konavle' was created in 2016, and showed a lot of potential and considerably helped in spreading the awareness amongst the people. Soon it resulted in including the theme of dry stone heritage in various social activities and events.

Dry stone heritage of Konavle (Croatia) Cavtat, Croatia, October 1-2 2021

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3. Typology of the dry stone heritage of Konavle

| STRUCTURES | DETAILS | BUILDINGS | ASSEMBLIES / PATTERNS | |
|------------------------------------|--|---|-----------------------|------------------|
| <i>zid uduplo</i> / dry stone wall | <i>nazubljeni vrhovi zidova</i> / jagged wall tops | <i>štala</i> / stable | terraces | step terraces |
| <i>podzid</i> / supporting wall | <i>rampa</i> / ramp | <i>pojata</i> / barn | | pocket terraces |
| <i>gomila</i> / dry stone pile | <i>skale</i> / stairs | <i>kućerica</i> / hut | | terraced fields |
| <i>janik</i> / apiary | <i>panjega</i> / niche | <i>klačina</i> / limekiln | enclosures | micro-clusters |
| <i>obor</i> / cote | <i>izvor</i> / enclosed spring | <i>gustjerna</i> / water tank | | enclosed dolines |
| <i>ledenica</i> / ice cave | <i>potok</i> / stone wall channel | unidentified object in the dry walled channel | | |
| <i>lokva</i> / pond | <i>kotorada</i> / conduit | | | |
| <i>gumno</i> / threshing floor | <i>kuneta</i> / ditch | | | |
| <i>kanal</i> / canal | <i>kamenica</i> / stone vessel | | | |
| | <i>križ</i> / cross | | | |

| | | |
|----------------------------|--|--|
| <i>međaš</i> / borderstone | | |
|----------------------------|--|--|

3.1. Structures

Dry stone walls are most typically built as double walled structures with an infill of smaller stones in between and serve as an enclosure or land partition between two owners. They were also used when building the load-bearing walls for houses or stone shelters but with additional binding materials.

Supporting walls for fields or roads, in terms of the total length, could be the most significant dry stone structures in Konavle. The sub-walls support the land of agricultural fields on steep terrains, preventing erosion and reinforcing the roads. They are made as a single wall structure.



Figure 1: Dry stone walls and supporting walls placed in Poljice

Dry stone piles are the storages of stone that was taken out of the ground while cultivating so large and thick piles can indicate long-term land use. They usually have an elongated shape so they resemble walls, and sometimes they take on the shape of a mound, so we should not mistake them for tumuli. When they are built as walls they were often planned in a large width with a formed path on the top.



Figure 2: Field enclosed with stone pile in Brotnice

Apiaries, when built as a drywall structure consist of circularly raised double walls for enclosing the beehives. Their main goal was to protect the hives from various animals and people entering and harming or stealing the hives. These structures are extremely rare in the wider Croatian Adriatic. Apiaries were mostly recorded in the hills of Konavle where they were built due to extensive livestock farming.



Figure 3: Apiary in Duba Konavoska

Cotes are often closely tied to a stable or a house. They refer to a wall enclosed space in which animals can freely roam. In less affluent families and older houses the cattle would be located on the ground floor so the cote would also serve as an entrance area to the house.

Ice caves are excavations or depressions in the ground lined with stone. They were built for the purpose of ice production, which is why they are located at higher altitudes. In winter, snow would be deposited in the ice caves. Eventually it would be covered with straw during hot summer days. Ice caves are extremely rare in the Adriatic but Dubrovnik Republic, for whom they were built, had greater economic power compared to other coastal cities.



Figure 4: Ice cave in Duba Konavoska⁸

Ponds were almost always used for watering the cattle. They are excavations or depressions in the ground lined with stone. Some ponds have cantilever stairs or ramps for easier access. While some ponds were connected to underground streams, most of them were filled with rainwater. They were built as a communal good so everyone had the right to use them. Majority of

⁸ Buzjak, N. 2016. *Ice cave in Duba Konavoska*

ponds are not in a good shape, often overgrown and not easily accessible so it would be fair to assume that the unexplored ones are in an even worse state. It is also possible that not all of them were stone lined.

Threshing floors are stone-paved and enclosed areas intended for threshing grain and processing cereals. They can be divided into circular threshing floors for animal work and square threshing floors, where grain was extracted by hand. The threshing floors were most often in direct contact with the barns located next to the settlements where the grain would be stored. They are ubiquitous in settlements on the Adriatic coast, but are no longer used.



Figure 5: Ponds in Šilješci surrounded by dry stone walls with jagged tops. Near bigger pond there are ramp and stone vessel



Figure 6: Threshing floors in Šilješci

3.2. Details

Ramps have been registered in some fields, connecting the upper and lower arable surfaces presumably of newer construction. In most cases however, a wider dry stone wall was used for walking and accessing the fields, slightly sloping in a ramp like manner on the field.



Figure 7: Ramps in Gabrili



Figure 8: Jagged wall top in Šilješci

Jagged wall tops can often be found on the tops of dry stone walls or buildings. It prevented livestock, particularly goats, from jumping over. The most common

practice was to put larger, jagged stones one next to the other or every 20-50 cm apart.



Figure 9: Stairs and niche in Duba Konavoska

Stairs are particularly useful elements for climbing up and down, and aren't very common as people used wider walls for walking. Steps can vary in types. Regular steps perpendicularly cut in the slope with supporting walls from each side and cantilever steps consist of long, protruding, rectangular stones built in the supporting walls, in stone huts for climbing onto them and in ponds for accessing the water during dry periods.

Niches are mostly found in huts and barns, but also in older dating houses. Used for storing work and everyday tools or putting a lamp inside.

Enclosed springs were one of the most valuable points in every settlement. They were often built around with stone in order to prevent the land erosion, turbidity of the water and to create an easier access for people and cattle.

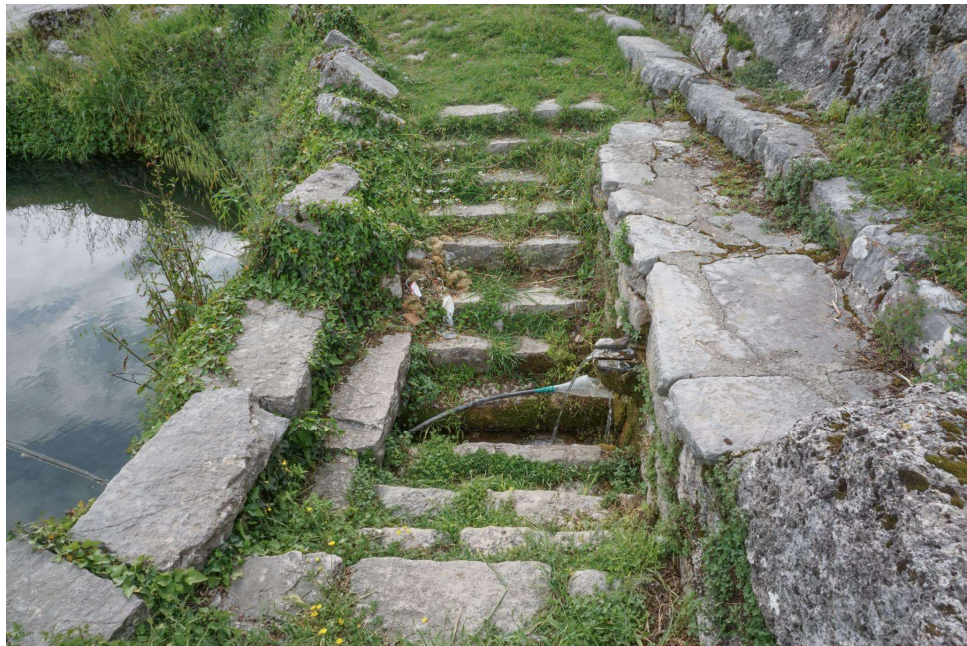


Figure 10: Enclosed spring in Duba Konavoska



Figure 11: Stone wall channel in Konavle field

Stone wall channels were made around the stream when passing close to the arable land or fields in order to prevent side erosion, although streams were most often left in their natural state without the stone lining.

Conduits are dry stone canals varying in size and covered with stone slabs, traversing a road or a path. They were positioned perpendicularly to the road. This

type of structure was sometimes built as an opening in the supporting walls in the places where there were flash flood streams (drainage purpose).



Figure 12: Conduit in Duba Konavoska

Ditches are deeper concave recession next to the roads serving as a water canal during heavy rains.

Stone vessels are made of a single block of stone, and are often placed next to ponds to allow easier watering of livestock. They were also used around the house or a barn for the same purpose. Stone vessels were also used inside as olive oil storages (pilo).

Crosses are interesting structures that are carved out of stone. They can be found on the tops of tumuli, on the elevated grounds, on the tops of drystone piles or sometimes wedged in the supporting walls. They can mark ancient graves or be used for religious practices.



Figure 13: Ditch in Komaji

Borderstone are larger, usually upright stones found on the top of the supporting walls of terraced fields used to demarcate the ownership between the same family members.

3.3. Buildings

Stables are shelters for livestock, which have a roof made of stone slabs, and are connected to an open space enclosed by a stone wall where animals would be kept during night. These types can be found in remote areas in the hills but also adjacent to houses.

Barns are simple stone single-storey houses, usually connected with threshing floors and used as hay storage. Made with dry stone walls and wooden-beamed roofs covered with stone slabs or piles.



Figure 14: Stable, barn and threshing floor in Duba Konavoska

Huts are stone buildings covered with a false vault, stone slabs or tiles. The houses were smaller in size, circular or square in plan, and served as a short-lived shelter in the field. These types of buildings can be found all around Konavle. The largest number of huts was built on the coastal ridge in arable plots that were further away from the villages.



Figure 15: Hut in Čilipi. Dislocated from airport 'Dubrovnik' in Čilipi and built on new location in Konavle field 2018

Limekilns are dry-stone buildings characterized by a very complex way of building that can only be read from an unburned structure. Inside them, a fire would be constantly burning for days until the stone disintegrated into lumps of quicklime. They are mainly related to the settlement of Molunat. They were built in some settlements for the local use but the majority was built by the sea where there was plenty of wood to maintain the fire and accessible shores for boat transport of the end product (quicklime). It is assumed that most of the limekilns originated during the time of the Republic of Dubrovnik for its massive construction works.

Water tanks were made for human consumption and are most often built on the site where groundwater has been found to exist. They are usually excavations in the ground, lined with stone and clay, above which absorbent surfaces would be built. The oldest way to build wells was in the lower points of the terrain, and an arch cover with binder material (mix of quicklime and earth) above them.

Unidentified stone structure inside a canal found in the Konavle field, the function of this object remains a mystery.

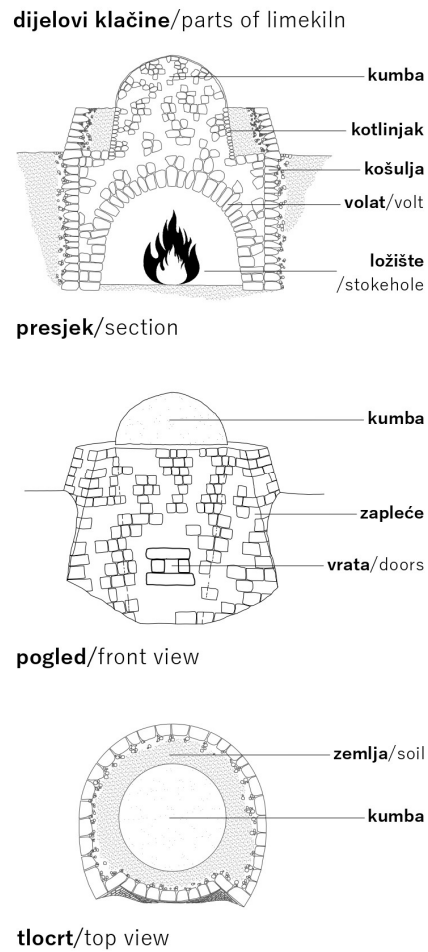


Figure 16: Parts of limekiln

3.4. Assemblies and landscape patterns

Step terraces of regular pattern are characteristic of the upper parts of the slopes. Drywalls are usually massive and well built, sometimes larger than the width of the arable land. Occasionally, groups of terraces are bounded by drywall into various shapes, where the boundary indicates the ownership. Terrace patterns are usually regular, but can vary depending on various factors. Very narrow terraces were initially used for growing vines.



Figure 17: Unidentified structure in a dry walled channel in the Konavle field

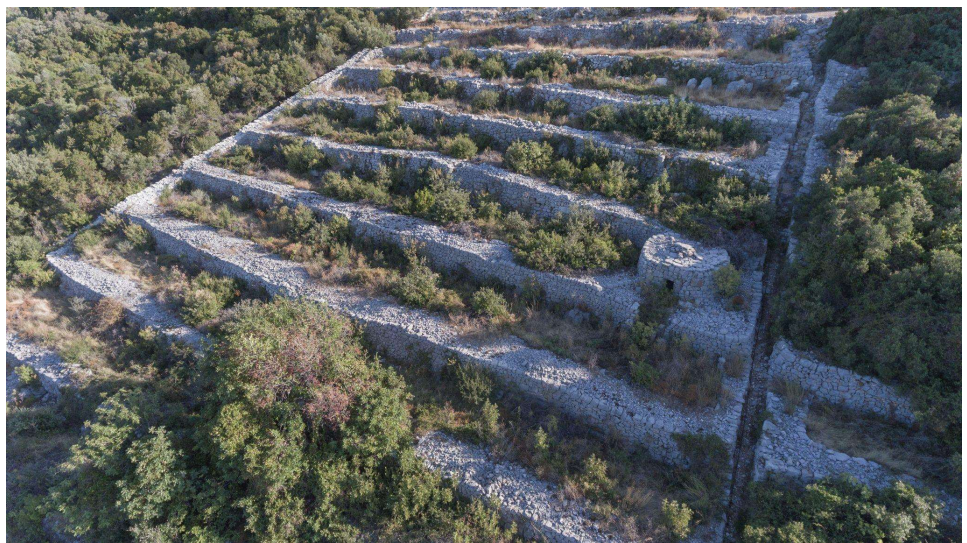


Figure 18: Step terraces in Komaji with a hut built on the terrace. Terraces separated on side by canal

Pocket terraces are semicircular or triangular pieces of land that can appear individually or in a group. This type may or may not contain sub-walls, and can be found on slopes with larger rocks where natural cavities are finished and filled with earth. Individual pocket terraces are designed to grow only one plant, but larger pockets are probably used as smaller plots for growing cereals, pyrethrum or as small meadows. "Spontaneous" pocket terraces (pašini) in very rocky areas are

common. A nice example was recorded in the village of Stravča where sub-walls between the existing rocks were formed on the steep slopes of the enclosed doline.



Figure 19: Pocket terraces in village Duba Konavoska



Figure 20: Terraced field in Kuna Konavoska



Figure 21: Micro-cluster near Duba Konavoska



Figure 22: Enclosed dolines in Jasenice

Terraced fields are transitional types between terraces and fields defined by the presence of natural soil, where cultivation was primarily done by plowing. There are different types of terraced fields ranging from wide to narrow, regular or irregular-

patterned, depending on the soil, lithology, relief etc. They are present in the areas where there is more soil such as the bases of villages or slightly sloping sides. Different crops can be associated, but cereals, vegetables and mixed use prevail.

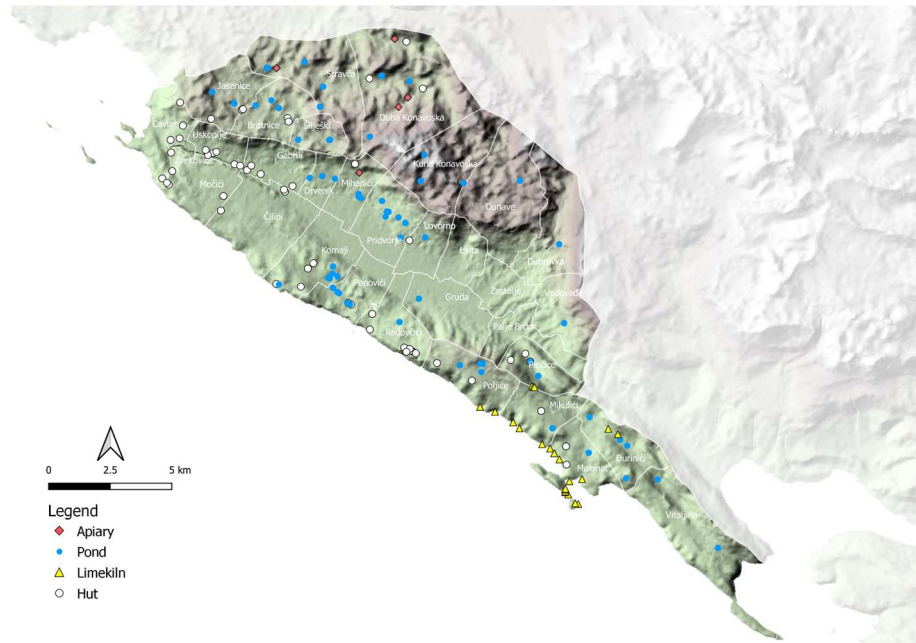
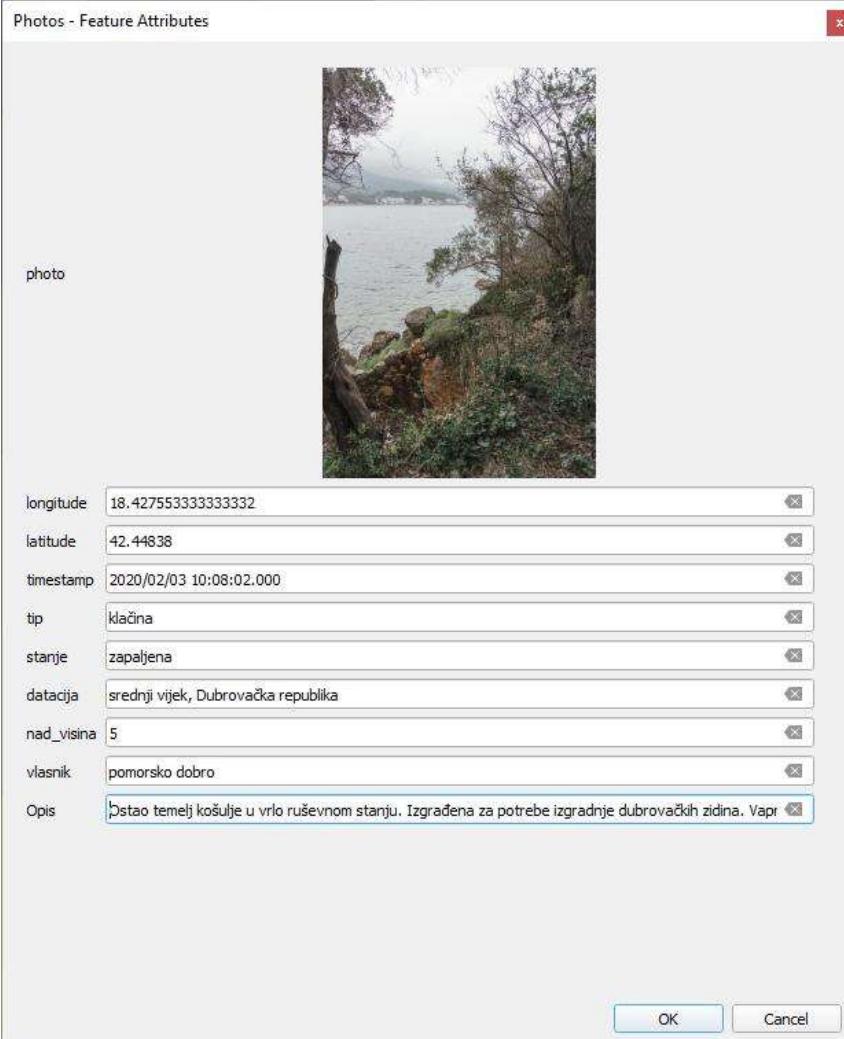


Figure 23: The compiled map of four most significant dry stone structures

Micro-clusters are described in Andlar et al (2018): they are a set of different structures and buildings (manures, small sheepfolds, gardens, crop fields, threshing floors and barns) often located further from settlements. The topography of the terrain contributes to their complexity, so examples in hilly areas are recognizable. In Konavle, microclusters are mostly found in the hills due to extensive livestock farming that required enclosure of agricultural land within and outside the settlement. On the other hand, due to the low population density, it was necessary to protect livestock from wild animals and robbers, which is why barns and stables complexes were built.

Enclosed dolines are the smallest type of enclosed fields - its formation is influenced by the micro relief depression enriched with soil and good microclimatic conditions, surrounded by a fence wall or terraces. They are found in settlements and beyond, as part of a more complex agricultural structure or as separate units on pastures, slopes or in forests. The purpose of the valley can be agricultural or could be used

as sheepfold. Such formations are also mostly found in the Konavle hills, where settlements were often built along enclosed valleys.




| Field | Value |
|------------|---|
| photo |  |
| longitude | 18.427553333333332 |
| latitude | 42.44838 |
| timestamp | 2020/02/03 10:08:02.000 |
| tip | klačina |
| stanje | zapaljena |
| datacija | srednji vijek, Dubrovačka republika |
| nad_visina | 5 |
| vlasnik | pomorsko dobro |
| Opis | Ostao temelj košulje u vrlo ruševnom stanju. Izgrađena za potrebe izgradnje dubrovačkih zidina. Vapri |

Figure 24: Example of vector file metadata for each type of structure/building/pattern: (1) photo (2) coordinates, (3) type, (4) condition, (5) dating, (6) elevation, (7) owner and (8) description.

4. Conclusion

Up until 2015 Konavle region was completely uncharted when it comes to dry stone features. Through this work, it has been proven that Konavle is a typical but also diverse dry stone area - 9 different types of dry stone structures, 4 types of buildings, 5 types of assemblies and patterns (2 types of enclosures and 3 types of terraces) and 11 different dry stone details on structures and buildings are registered. As well, 55 huts, 69 ponds, 22 limekilns and 5 apiaries were recorded in detail. However, the author's work through the initiative 'Dry stone heritage of Konavle' had a more far-reaching contribution whereas through interviews,

workshops and lectures brought the topic to a closer attention within the general public. It might be concluded that the results of seven years of voluntary work brought a completely new spatial perspective which will have an impact not only on the local community identity, but also on the experience among visitors.

However, we believe that these are just the starting point. The further goal is to create an extensive GIS and photo register of Konavle's dry stone features which will finally be presented in a monograph. Hopefully those results will be used to protect and further develop the dry stone landscape of Konavle within various sectoral policies (cultural heritage, agricultural and rural development policies).

Bibliography:

Andlar, Goran, Filip Šrajter and Anita Trojanović. (2017) 'Classifying the Mediterranean Terraced Landscape: The Case of Adriatic Croatia'. *Acta Geographica Slovenica*. *Acta Geographica Slovenica* 57 (2): 112–29.

Andlar, Goran, Filip Šrajter, and Anita Trojanović. (2018) 'Discovering Cultural Landscape in Croatia: History and Classification of Croatian Adriatic Enclosed Landscape'. *Annales: Anali Za Istrske in Mediteranske Študije - Annali Di Studi Istriani e Mediterranei - Annals for Istrian and Mediterranean Studies*. Series *Historia et Sociologia*. 28-2018 (4): 759–78.

Andlar, G. & Aničić, B. (2018) 'Multi-method Approaches to Cultural Landscape Assessment in Croatia'. U: Fairclough, G., Sarlöv Herlin, I. & Swanwick, C. (ed.) *Routledge Handbook of Landscape Character Assessment*. London, Routledge, 90-104.

Grove, A.T. i O. Rackham (2003) *The Nature of Mediterranean Europe: An Ecological History*. New Haven, Conn. London.

Sturica.P. (2016). *Kulturni i krajobrazni značaj rijeke Ljute*. (Final thesis, University of Zagreb. Faculty of Agriculture. Department of Ornamental Plants, Landscape Architecture and Garden Art).

Trojanović.A. (2015). *Interpretacija kulturnog krajobraza Konavala*. (Final thesis, University of Zagreb. Faculty of Agriculture. Department of Ornamental Plants, Landscape Architecture and Garden Art).

Trojanović, A. (2017). *Inventarizacija i upravljanje suhozidnom baštinom Konavala*. (Graduate thesis, University of Zagreb. Faculty of Agriculture. Department of Ornamental Plants, Landscape Architecture and Garden Art).

Šrajer, F. (2019). *Model za inventarizaciju, monitoring i evaluaciju suhozidnih gradnji u Hrvatskoj na primjeru Starogradske polje na otoku Hvaru*. doktorska disertacija, Arhitektonski fakultet, Zagreb.

Kapetanić N. (2011.) *Konavle u XV. stoljeću*. Matica hrvatska Konavle. Gruda

Šoljić A., Šundrica Z., Veselić I. *Priredili i na hrvatski jezik preveli (2002) Statut grada Dubrovnika*. Dubrovnik. Državni arhiv u Dubrovniku. Knjiga peta, 297-323.

Short biographies of authors:

Anita Trojanović was born 25th of July, 1992 in Dubrovnik. After graduating in 2011 at the Luka Sorkočević Art School in Dubrovnik, he enrolled in the study of Landscape Architecture at the Faculty of Agriculture in Zagreb. During studies she participated in numerous international workshops and competitions. She graduated in 2017. She works at Studio LandA d.o.o. in Dubrovnik as a landscape architect where she has the opportunity to work on numerous projects in Croatia. She is the co-author of three scientific articles. Acting through the association Dragodid, she organized numerous drystone workshops in Konavle. She is the carrier of a family farm in Pavlje Brdo, where she lives with her family.

Goran Andlar, landscape architect, born 1981. Employed as assistant professor at University of Zagreb, Faculty of Agriculture, Department of Ornamental Plants, Landscape Architecture and Garden Art. He is head of BA Landscape Architecture study programme and lecturer and associate in five courses at the eponymous BA and MA.

He has interests in rural cultural landscape, green infrastructure, landscape legislation, landscape character assessment and GIS analysis and databases topics. Particular emphasis is on Adriatic karst agricultural landscapes research. He runs a Croatian rural landscapes geo-photo archive on the basis of many years of field research and aerial flights. He is the initiator of the interdisciplinary platform Banija Landscape Observatory, member of Suhozid.hr, EUCALAND, ITLA and CALA - Croatian Association of Landscape Architects.

Pavo Đukan was born on 12th of April, 1996 in Dubrovnik. After graduating from high school in Dubrovnik he went to study Landscape architecture at the University of Zagreb. He is currently finishing up his Master's degree. Throughout his studies, he took part in numerous competitions and workshops both local and international. Parallely with his studies, he worked as a landscape architect for different companies on various projects. In his free time he took part in a couple of drystone workshops in Konavle and since 2022. He is a member of the Dragodid Association.



Petra Sturica was born 18th of February, 1995 in Dubrovnik. She graduated in 2013 at the Dubrovnik Gymnasium, after which she enrolled in the study of Landscape Architecture at the Faculty of Agriculture. In the winter semester of 2017, during second year of Ms went on a student exchange at the University of Trás-os-Montes and Alto Douro, Portugal. Since 2014, she has been starting an activity within the Drywall Heritage, as a part of the 'Drywall Heritage of Konavle' initiative. In 2020 she became a member of the Dragodid association. During her studies she participated in several competitions and workshops, as well as working on projects in the field of landscape architecture. In 2019, she completed her studies and was employed in the film industry as a draftsman in the art department, where she works to this day.

Graduate in architecture (DPLG) and in urban planning (DESS), certified in environmental quality of the building (QEB) and environmental approach of the urban planning (AEU). Founding member of the French Federation of Dry Stone Professionals (FFPPS), a network she initiated with Paul Arnault in 1999 and a mission she coordinated for the Chamber of Trades and Crafts of Vaucluse between 1999 and 2017. Initiator of the registration of dry stone waller as a rare craft at the Ministry of Culture in 2010, then dry stone waller as a specialty of heritage mason in the National List of Crafts common to 3 french ministries in 2016. Initiator of the project of transnational application to UNESCO at the SPS Congress in Sardinia in 2012.