Ex-Marlstone Quarry as a Community Space

Results & Methodology

1. Building the (institutional) collaborative platform

Collaboration is a basic postulate of every community. Still, we can witness its absence so often.

One of the project goals was to build a platform of relevant partners that can and are willing to work together on the revitalization of ex marlstone quarry in Majdan.

The key was to contact all the subjects in the planning phase, so they were able to contribute with advices and proposals, recognize their interests and share the ownership of the idea.

Project axis is made of the Local government of the City of Solin, on the area of which ex marlstone quarry is situated, and Croatian Forests – Administration Split, that manage it in the name of the Republic of Croatia as a part of the forest economic entity “Mosor–Perun”.

During the submission for the ECF’s R&D grant, the Faculty of civil engineering, architecture and geodesy in Split agreed to become a partner and organize the student architecture workshop.

This was the project milestone since it has multiplied symbolical and material value both of the grant and the project. The Faculty’s involvement ensured the participative moment in the best sense – even 27 graduate students of the architecture study and six architect mentors worked voluntarily on a daily base, for a month. It is also important to highlight that one of the strategic goals of the University of Split is a close collaboration with gravitating local governments and vice versa, and we can claim that the workshop Mayday! Majdan! Mayday! contributed to the fulfillment of that scope.

The workshop required multidisciplinary approach; therefore a landscape architect and an expert in the field of art, design and public domain were engaged. We had one more architect who voluntarily joined as a guest critic at the public presentation in the Cultural Centre Zvonimir Solin, and as a jury member. As we agreed with the partners from the Croatian Forests that only ecological principles of the intervention are eligible, the NGO
Permaculture Dalmatia provided us with the knowledge in the landscape reading and zoning during the field work in Majdan.

The ex marlstone quarry is located within NATURA 2000 area “Mosor, Kozjak and Trogir’s hinterland” - a protected bird habitat. The ichthyologic preserve of the Adriatic trout is found just nearby, in the headwaters of the River Jadro. The expert manager of the Public Institution for Management of Protected Natural Values in Split-Dalmatia County contributed with recommendations and knowledge of the legislations that must be followed. As well, consultations were held with the head of the City’s Department for communal activities, economy and the management of the space in order to get all the necessary regulation regarding the General urbanistic plan of the City, since the site is categorized as a protective green area.

Other important stakeholder, the donator of the project as well, is CEMEX Croatia. The company is the “heir” of the Dalmacijacement’s factory and properties in Majdan, and represents an important subject for the future of the ex marlstone quarry surroundings.

We also collaborated with the Cultural Centre Zvonimir Solin, a driver of the cultural activities of the City, which provided the gallery space for the public presentation and exhibition of the student works. They also followed up the project in the local newspaper “Solin Chronicle”.

We noticed an institution in charge for the water supply management, Croatian waters, of the project goals (if the irrigation of the site should be necessary). They found the project valuable for the identity of the river Jadro spring and are expressed interests for the potential collaboration in the future.

During the workshop, in the final phase, we had a special “Idea Camp” guest Gaetano Carboni, who presented his project and commented the student works, giving them the wider perspective on their ideas.

Finally, the (institutional) collaborative platform was built of:

- City of Solin
- Croatian Forests
- University of Split, Faculty of civil engineering, architecture and geodesy
- an action group consisting of 6 architects mentors and 27 students of the graduate architecture studies
- external experts: a landscape architect, an expert in the field of art, design and public domain, an architect guest critic
- Public Institution for Management of Protected Natural Values in Split-Dalmatia County
- Cultural Centre Zvonimir Solin
- CEMEX Croatia: the cement producer
- NGO Permaculture Dalmatia

This platform, the core of the local support group, enables not only participative action planning and implementation of intervention in Majdan, but the future social and economic sustainability as well. The site should serve as a polygon or a lab for institutions and NGO’s to implement their programs funded from different sources (ESF, EU programs...), and its managing board could be a hybrid one, consisted of institutions and NGO representatives. Once designed, it can be almost self-maintained with a contribution of City’s communal company, which has already agreed to care about the site.

This process required a lot of engagement and advocacy, but in the end the possibility of the mistake and dominance of one stakeholder’s interests were significantly reduced.
2. Asking the right questions

Nikola Bojić, the expert in design studies and interrelations of art, design and public domain who worked on the project, summed up the whole process of designing the public space in the following questions that all the participants had in mind all the time:

*Diving in the site* - Are there traces in the space through which we could immerse ourselves into specific spatial logic? How could we be able to access the lost memory of the space and develop an entirely new, unforeseen spatial scenario? During this process, which material and symbolic artefacts could come to the surface? Is there any vital need for establishing a link between the past and the future?

*Person as a map* - Who knows the people, history, stories, hidden locations? Who keeps the genius of the place? Which person heirs the cartography of the site and has the power to animate and gather together both individuals and the wider community around ideas related with that specific site? If he or she exists, this person could become a design medium.

*Users* – Who are the persons we are designing the site for? What community knows of the project, so it could recognize itself within the project goals? Why should anyone care about what is going to be designed on this specific site? How can local community use and benefit from the site in the long-term perspective? Does the planned intervention leave a possibility for changes, upgrades and new interventions (in the programming and spatial sense)?

*Policies* - Design is necessarily a political act. In this case it must balance between two parallel lines: European Cultural
Foundation - organization that has supported the research and thus set up the values to be linked to the project, and local dynamics and needs that doesn’t have to overlap with the ECF’s scopes completely. How to balance, which design and negotiation language to use so we can conceive that the project doesn’t lose the most important value – the one reflecting upon the life quality and needs of the local community?

It turned out that the third, European element (ECF) in the relations between institutions and local community successfully catalyzes the potential conflicts and changes the modes these subjects usually operate on the local “battlefield”. The symbolical advocacy and material support of the “external” institution makes everyone think and act wiser, and it is possible to do things that would otherwise be almost unthinkable or extremely low on a priority list.

3. Student workshop

*Mayday! Majdan! Mayday!*

Designing the ex-marlstone quarry was not an ordinary assignment for the architecture students. The site is challenging thanks to its historical narrative and the present state, its position, dimensions, and the fact that strict legal regulations had to be followed since it is categorized as a protective green area according to the general urban plan of the City. Thou someone might say that these are pretty restricting conditions, all the workshop participants found it challenging in a positive and creative way.

Architecture students used a specific design language based primarily on the selection and arrangement of vegetation as a tool for creating different atmospheres and features of the site. Hence, they stepped into the area of the landscape design and botanic, and took a research to find out the autochthonous plant species, their growth cycle, time and color of their blossom...

With a help from the experts, at the very beginning of the workshop, they “read” the landscape and made a vegetation map of the present condition during the field work. The site is defined by the volatile, almost vertical flysch slope – a consequence of digging the marlstone on the east, Diocletian’s aqueduct - a protected cultural heritage on the north-west, and the Aleppo pine (*Pinus*...
*Halepensis* forest on the south. The present plateau was piled during the last 10 years to fill up the hollow, where (rain)water used to form a lake since the soil is poorly permeable. The plateau was piled by the City in order to build an additional stadium for the local football club, but the Croatian forest did not approve this kind of intervention. In the last 10 years, it was covered by broom (*Spartium junceum*) and aster (*Aster squamatus*), a plant that can be found in the urbanized areas. Sedge (*Carex sp.*) is located mostly on the north border of the site, close to the River Jadro, and was common in the vegetation catalogue of the preliminary designs.

Specialized literature was purchased for the purposes of the workshop, and donated to the Faculty’s library after the end. We awarded the students as well with a part of specialized books, a gesture of appreciation and gratitude for their hard work. They also received diplomas for participating in the workshop.

On the recommendation of the expert in geomechanics that the architect mentors had consulted, students moved their interventions away from the slope for approx. 20 meters because of the safety reasons. They also kept distance from Diocletian’s aqueduct to ensure that its physical integrity stays untouched.

Students highlighted the lack of knowledge regarding the vegetation types and characteristics, and some of them – the most evident example is “Botanic garden” – focused on the educational aspects the site could have in that domain precisely. At the end of the workshop the progress was evident thanks to the consultations with expert in landscape architecture, and all the groups selected the adequate vegetation.

But still, there was a vast surface to be designed, and the students developed different approaches based on their own research of the target groups, facilities the city and its surroundings currently have, and ones they lack. This was an additional task for the students. That information is otherwise available in the description of the assignment, but the mentors wanted them to undertake the research, and to think of the final
beneficiaries they are designing for. In other words, they wanted the students to choose their own approach and theme based on the research and to argument it. This was the only tool to truly test different potentials of the site – at the same the students were somewhat limited in the formal elements (scale of intervention), and free to create content(s) they find suitable, attractive and necessary.

Thinking of the sustainability naturally derived from this process. Students developed different usage scenarios of the site in relation to the target group(s), local community of Solin, inhabitants of the wider area, potential tourists... When sustainability was firstly mentioned on the workshops, some students thought of commercial activities, but later we all realized that there are many other, more sophisticated models to achieve it under presumption that the design itself doesn’t require expensive maintenance (which was not acceptable from the very beginning).

The most common target groups of all proposals were pre-school and elementary school children and families, which seems logical since Solin is the youngest City in Croatia according to the last population census. Lot of young families move from Split to Solin attracted with the cheaper housing. The City is dealing with the significant pressure to ensure the adequate public and educational infrastructure (the second new elementary school is being built in the last decade). The City is also applying for the title of the “Child Friendly Town” and is organizing different events in order to get that title. At the same time, some kindergartens and elementary schools lack green areas for their activities. Two elementary schools are registered as eco-schools and have activities related to sustainable development and ecology. The other target groups were children and persons with special needs, recreation enthusiasts and athletes. In a wider sense, the final beneficiaries were inhabitant of Solin and surrounding area (Split, Kaštela, Klis), as well as tourists visiting archaeological site of the Roman Salona, situated about 25 minutes by foot from the ex marble quarry.

If we analyze the typology of students’ designs, we can see that they vary from interventions that concentrate on one kind of facility only, to those based on one theme but providing the space for other facilities as well.

1. Rehabilitation center for the birds of Majdan

   The intervention builds on the fact that the site is part of NATURA2000 network as a protected bird habitat. Hence, it is transformed into “natural reserve” to shelter the injured birds until they are able to go back to the nature. The disposition of aviaries, as new architectural elements, forms interactive places such as picnic lots, playgrounds, gardens, rest areas, viewpoints... The target groups are children of Solin and surrounding areas that could adopt a bird and work in the gardens. These amenities could attract other age groups as well.

2. (Sub)urban gardens

   Regarding the high urbanization level of the whole area, the authors decided for predominantly agricultural, but also recreational and educational functions. Target group are children, especially those attending eco-schools where they learn about ecological production of food and environment protection. To some degree, gardens and orchards would serve for education, and the rest would be given to the citizens on lease. The students also designed the relaxation area for picnic, social events, educations, and trim trail with workout devices, leading to the viewpoint of the whole city.
3. Hollow forest - a family park

The authors decided to “help” the surrounding forest to conquer the ex marlstone quarry. Their intervention was based on “negative design” – they designed hollows by arranging the vegetation instead of designing the buildings with walls. Voids of the newly created forest are polyvalent and suitable for different facilities of family leisure time. The classical forest features are combined with the park, and the project is low-budget and low-maintenance. Target groups are young families and children that lack quality public open space.

4. Sports and recreational park

The authors focused on the recreational and sports activities, combining the playgrounds and green areas in the rhythmical pattern vertical to the aqueduct as a most prominent border of the site. The vegetation was selected regarding the cycle of their growth and blossom, so the park would provide different esthetic impressions in various time of the year.

5. Botanical garden

There are eight botanical gardens on the Croatian part of Adriatic coast. One is situated close to Majdan, in the Park Forest Marjan in Split, but it has been in decay for years. The authors claim that the ex marlstone quarry plateau is ideal for presentation of autochthonous Mediterranean herbs, especially those that are protected, rare and/or endemic. They highlighted that this could be contribution to their protection and maintenance of biodiversity, and that it could attract the scientific and public interest for the need of their preservation as well.

6. Swimming in the rain

The intervention is building upon the vanished relation of the River and the citizens, which reflects in the fact that almost nobody uses Jadro for swimming. Since the marlstone is poorly permeable, the authors find the site ideal for the “natural pool” that would function by collecting the water during the year and filtering it with special sorts of plants. There is also the sunbathing area that could consolidate the soil at the same time. The rest of the parcel is left is the current state.

7. School garden and outdoor classrooms

The authors designed the area for education, fun, culture and sports. School garden is the main theme since two out of three Solin’s elementary schools are titled as eco, but lack the appropriate gardens to support that status. A carved amphitheater is designed as a reminiscence of the Roman one situated in Salona, and it uses the aqueduct vaults as a site-specific scene. Other facilities are playgrounds, viewpoints and open spaces that can be used as classrooms.

8. Marlstone island

The concept is based on conceiving the site as a desert covered with pampas. In the middle of the plateau, somewhat hidden
but reachable by designed promenade, is the “island”. The “island” is a multifunctional space with the ground made of recycled gum, and it can be used for different kind of sports and events thanks to the prefabricated elements placed nearby, in the pampas. The foreseen facilities are outdoor classrooms, eaves, tables for the fairs, stands for the concerts or sport tournaments, movie projections...

9. Sensory park

Solin and Split have about 1000 children with special needs and the number of the educational institutions for their social integration in inadequate. The site adjusted to their needs, but interesting to the wider population as well, would encourage social contact and enhance the sensibility for vulnerable society groups. Design and arrangement of architectural and horticultural elements would enable stimulating sensory journey (gustative, visual, olfactory, tactile, and auditory), enhance development of motor skills, and learning by exploring the environment.

10. Playday (Adventure Park Majdan)

City of Solin has two major one day resorts: Blaca (eco-ethno village) and Salona (cultural and educational one), so the authors wanted Majdan to became the third type, having in mind the number of sport clubs, young people and children. They proposed the intervention with recreational and amusement functions based on alternative types of recreation. The focus is on the vertical elements of the site – the slope and the aqueduct and the tension they create. Therefore, “adrenalin” facilities such as viewpoint, suspension bridges, climbing frames, swings, and trampoline are designed...

The horizontal layer contains facilities in the less adventurous level.

Designs and concepts were presented on the exhibition in the local Cultural Centre Zvonimir Solin by panels, models and catalogues. More than 100 people attended the public presentation and voted for design they found the most successful according to their needs. Afterword, we decided to set up exhibition once again, this time at the Faculty of civil engineering, architecture and geodesy in Split to present it to the colleagues of the students and mentors that participated in the workshop.

At the end, the expert jury selected Sensory Park and Hollow Forest as the most successful architectural preliminary designs
and proposed their combination in a unique design that will serve as a technical documentation for application on the EU funds. The jury decision was confirmed with the votes of the public at the exhibition opening and presentation of designs in the Cultural Centre Zvonimir Solin. Creation of the hybrid design, together with the detailed budget, is the next phase of our journey.

As a conclusion, here is the reflection on the workshop from the awarded student groups:

_The workshop greatly contributed to training and learning about the horticultural design of abandoned open spaces in our surroundings. By reviving the “dead” sites, they are given a different dimension and understanding among ordinary, everyday users and neighbors of such spaces. The essential fact was the discovery of hidden potential of abandoned spaces that could be used in so many ways to contribute to the quality of life of the local community. The workshop was organized on the high level and young mentors, those who are the future of the study of architecture in Split, were completely committed. An important added value was that we could talk and argue with our mentors as with we do with friends, which resulted with high quality designs. We only wish that landscape architecture students had been included, so we could build friendship among our generation._

Unfortunately, there is no landscape architecture study on the University of Split, and it was impossible to organize the students from Zagreb to participate in the workshop in this format. But, we tried to compensate that fact by engaging a landscape architect as an expert mentor.

4. Consultation with target groups and the local community

During the research we had consultations with stakeholders and target groups to ensure participative programming of the intervention.

To provide students with quality inputs form the local community, an online survey was conducted to question if the local were satisfied with the number and appearance of the existing public spaces in Solin, if they support the initiative, and to find out their suggestions for the site of the ex marble quarry in Majdan. Total of 121 people participated in the survey and the results, comments and proposals for Majdan were taken into consideration during the planning and designing of interventions. Comments and critics referring the number and appearance of the public spaces in Solin were given to the communal service.

The principle of the elementary school “Queen Helen” and the local kindergarten organization support the action and are willing to participate, especially trough their eco-groups and during the project days related to their ecological activities.

The NGO “My Child”, gathering the parents of the children with special needs, was also consulted to get specialized info for the development of sensory park.

_Mediterranean Cinema showed interest for the movie projections on the site._ ROOM 100, an experimental performing company from Split, also expressed the
support to the project and is interested in the future collaboration and site-specific performances.

Permaculture Dalmatia, as our associate, showed interest for implementing their future activities on the site.

Cultural Centre Zvonimir Solin, the generator of the local cultural activities, gave the idea total support.

Tourist board Solin also gave the support to the project for its tourism value – “new type” of tourists prefer the facilities the locals use and trips in the nature are high on the list of their interests.

5. The next steps

A journey from an idea to its realization is a long one. We are now on the half of our way, and following steps are needed:

1. getting the funding for the second phase of architectural documentation
   - sources: the institutions involved in the first phase, campaign among companies active on the City’s territory to become donators and sponsors of the project, national funds for creation of technical documentation

2. application on appropriate EU fund in order to realize the intervention - preferably cross border cooperation programs with Italy since the marlstone from Solin was commonly exported in Italy. This way, we could give the initiative European dimension

Parallel with this process we decided to widen our research and join the URBACT network on the theme of sustainable urban development - dealing with the (sub)urban brownfields and urban growth by reconversion of already modified landscape. One of the goals of the URBACT program is to create local support group that would give inputs to the local authorities so the urban planning could be done in a participative mode. Thanks to the project “Ex Marlstone Quarry as a Community Space”, we have already formed a core of that group and experienced that process in a smaller scale.
Ex-Marlstone Quarry as a Community Space research in numbers:

- 5 institutions (City of Solin, Croatian Forests, Faculty, Public Institution, Cultural Centre Zvonimir Solin) and 1 NGO (Permaculture Dalmatia) supported the project
- 1 corporation as donator (CEMEX Croatia)
- 1 architectural workshop Mayday! Majdan! Mayday! organized and implemented (5 consultations and one field work)
- total of 46 experts and students directly involved in the workshop process, including the special “Idea Camp” guest Gaetano Carboni
- 10 architectural preliminary designs and models produced
- 1 common model of the site
- detailed geodetic survey of the site and architectural survey of the abandoned object nearby the quarry conducted
- 35 readers printed
- 3 opening lectures given
- 2 exhibitions presenting the students’ work (one in the Cultural Centre Zvonimir Solin with the public presentation and one on the Faculty of Civil Engineering, Architecture and Geodesy)
- 12 exhibition panels produced
- 200 exhibition catalogues produced
- 55 canvas bags and 55 T-shirts (donation of Croatian Forests), letters of thanks for all the participants, gifts for the mentors and awarded students (donation of Solin)
- 27 student diplomas
- specialized literature purchased for the workshop donated to the Faculty’s library
- online survey focused on public spaces in Solin and the ex marlstone quarry conducted and analyzed
- 109 votes of the presentation visitors in the Cultural Centre Zvonimir Solin taken into account
- decision and explanation of the expert jury upon the most successful designs
- 2 awarded architectural preliminary designs
- consultations with stakeholders and target groups upon the selected designs
- project blog/website and page on the social network (Facebook)
- media coverage (local newspapers – Slobodna Dalmacija, Solinska kronika; radio; Gazette of Croatian Forests; specialized web portals – vizkultura, kulturpunkt, DAS, DAZ, pogledaj.to...)
- participation in the panel discussion on the theme “new places of sociability” during the Subversive Festival in Zagreb
- an article in the expert and scientific magazine “Tusculum”

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