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5. Structural Reforms, Legislation and Investment Attraction in Open Pit and Undersea Mining
Up to 15.01.1998 there are received 119 papers from the specialists from 14 countries.

VENUE OF THE CONFERENCE
BULGARIA, Varna
"Zlatni Piasatzi", "ENERGO - 2" hotel

PAPERS, REQUIREMENTS, PUBLICATIONS
During the conference simultaneous translation in English, German, Russian and Bulgarian will be provided. Authors must present the paper in one of the official languages in maximum 8 typewritten pages, including the abstract in maximum 200 words on English or Russian (language different from the language of the paper). The papers will be published, as they are presented. The collection of the papers will be given to the participants at their registration. Time for the presentation of the paper into the auditorium is up to 10 min.

The papers must be printed on printer or typewriter with black ribbon and must be received from the organizers up to March 30, 1998.

Presented papers after that date (and unpaid participation fee too) and uniformed as per instructions will not be printed in the collection.

The papers must be printed on white paper, format A4, with useful area 17/24sm, with formed margins from both sides 2,5sm and 1,5sm, from top and bottom - 3 sm.

At first on the top must be printed the title with capital letters, after that the names of authors with their addresses, alter that the abstract and the report. The numbers of pages must be written with pencil on the top of page.

It is necessary the author of the paper to prepare the short information for presentation.

PROGRAM OF THE CONFERENCE
- June 2nd, 1998. Registration and putting up at the hotel. "WELCOME" Cocktail from 6,45 to 9,00 p.m.
- June 3rd, 1998. Opening of the conference at 9,00 a.m.
- June 3rd, 4th, 5th, 1998. Conference sessions as per the program, given to all participants at their registration
- June 5th, 1998. Dinner organized from the Bulgarian Organizing Committee at 7,00 p.m.

The seaside resorts "Zlatni Piasatzi" and "Albena" (20 km in the north) proposed many funs - restaurants with national food and programs with Bulgarian, nestinarian and gypsy dances, interesting attractions for all guests.

During the conference will be organized excursions and other actions on following prices:
- Visit of the night club - 22 USD
- Excursions:
  - Istanbul, Turkey: - Two days with one night - 95 USD
  - Three days with two nights - 130 USD
  - Mamaia, Romania: - One day - 50 USD
  - s.r."Albena": - 16 USD

ADVERTISEMENT, PROMOTION OF COMPANIES, EXHIBITIONS
During the conference promotion of companies, an exhibition with leaving to the advertisement area will be organized under the following conditions:
- Advertisement in the collection of papers, format A4, black print - 100 USD. Dead line for the presenting of the advertisements: March 30.98.
- Participation with own ad materials - 80 USD. Dead line for receiving in the organizing committee - April 15.98.
- Exhibition area without stand equipment for 3 days at 30 USD per m².
Promotion of companies - 20 USD per 1 minute. Dead line - 15.04.98.
RESHAPING AND REDESTINATION OF THE EXCAVATED AREAS FOLLOWING THE EXAMPLE OF THE STONE QUARRY "SEGET" - SPLIT (CROATIA)

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Key words: Stone-quarry, Dimension stone, Technical-building stone, Shaping, Redestination of excavated areas

Summary

The quarry of dimensional and technical-building stone “Seget” is situated in the suburb of a great town, close to the sea coast, along the main road and on a higher level of the airport. The quarry is in function for a number of years, therefore considerable grounds in an attractive landscape and tourist region have been devastated.
A paper presents a possible reshaping and redestination of excavated areas along a planned and limited continuation of the mining exploitation.
There is being created a form of sporting-economic complex which is to be further improved by strictly specified-purpose contents.
The quarry of dimensional and technical-building stone “Seget” is situated at the north of the Adriatic main-road in vicinity of the town of Trogir, between Seget Gomji and Seget Donji (Fig.1).

Exploitation of the mineral raw-material is being performed in a unique exploitation field, through high-altitude surface pit on the slopes of St. Iliya mountain, which hill makes 304 m. Two parts should be distinguished in the exploitation of deposits:
- south-western part, where dimensional stone is exploited;
- north-eastern part, where technical-building stone is exploited.

Due to exceptionally convenient position of the quarry and satisfactory road connections, a wide market for placing stone aggregates is ensured. Furthermore, dimensional stone “Seget” is well known both on our market and the world market. This quarry, and particularly this stone, was mentioned already in the third century B.C., and the erection and development of “Traguria“ (town of Trogir) was mainly motivated by the exploitation and trade of this stone.

Tradition of this region connected with the work in stone has been preserved till present days in the toponym Seget. Findings of the Roman fragments from colonnades, capitels, old tools to the altars dedicated to Heraclio, witness the excavations of stone in the ancient times. There have been found also blocks and traces of “pašarina”, an old technique of excavating stone blocks. Many stone-masons and stone-workers from Trogir were noted down in notarial records and other documents from the 13th to 15th century. The most famous was Radovan, sculptor and the author of the main port of the Cathedral of Trogir, one of the most beautiful works of the Romanesque plastic art in this country. Our modern sculptors, like Ivan Meštrović and Frano Kršinić, carved their works in this stone.
Fig. 1 Geographical position of the stone-quarry “Seget”
THE STATE OF THE MINING WORKS, DEMANDS ASKED FOR LANDSCAPE

The influence of the mining works on the landscape is extremely great, as during the execution of the works, so even more after they are finished, for there remain permanent changes in the neighbour environment. For this reason, the mining works should be defined and led so that they answer basic conditions for an environment, currently participating in the shaping of newly risen final form of the excavated areas which might be adequately modified for other purposes. All the stated particularly regards the quarry of dimensional and technical-building stone “Seget”, owing to its following characteristics:

- the quarry represents a greater intervention in the nature, with a remarkable production of technical-building stone and notified resources of dimensional stone of exceptional features;
- the quarry is situated in an important tourist region, close to the sea;
- the quarry is 100-300 m above the sea level, thus dominating a view towards the city, its suburbs and the sea;
- the quarry makes a unique entirety in the landscape, and it is technologically divided into two parts: a south-western part that gives dimensional stone of bank structure (blocks are taken out by under-mining by means of a chain-cutter and by sawing by means of a diamond wire saw); a north-eastern part that gives technical-building stone of cliffy structure (it is obtained by mass mining, after which it is transported to the separation where it is further processed into commercial fractions)
- the pit of technical-building stone is developed at the elevation K150, and the belonging equipment for grinding and separation is placed on the plateau K134. The works on the excavation of dimensional stone from the plateau K125 go down in search of a productive layer. Following the above said, the basic plateau of current works on the quarry “Seget” totally encircles there stratas: upper K150, middle K134 and lower K125 which further descends down (Fig.2).
- at the crossing from the pit of technical-building stone to the pit of dimensional stone, a considerable quantity of rocky mass lags behind which represents a barrier to the influence of the mining works on the bank limestone.
THE SHAPING AND POSSIBLE REDESTINATION OF THE EXCAVATED AREAS

The location of the quarry of dimensional and technical building stone “Seget” enables on undisturbed work on the extraction of mineral raw materials. However, today, this activity is met with the local people's opposition, in particular in the region where the existence of the majority of inhabitants is linked with some other activities, like tourism and agriculture. Hence, the surface pit of the “Seget” quarry of dimensional and technical-building stone should be adequately formed so that all the characteristics of immediate and wider environment are included. The mining production should be conveniently finished in a foreseeable future.

The shaping of newly risen excavated areas is conditioned by general characteristics of the works, by morphology of the ground, by the features of immediate and wider environment and by a period of time in which redestination should be done. Final shaping of excavated them to the conclusive and possible redestination.

Therefore, the continuation of activities on the quarry is possible only in the frame of strictly planned but sufficient production, achieve the means (funds) for an incidental sanation of the present state, enabling designing of new forms with adaptable and acceptable contents for the environment.

Defined quantities of mineral raw materials, after having been taken from the mountain massif, create a newly shaped area, enable a production sanation and, at the same time, achieve a considerable yearly production in the period of about 15 years. From a three dimensional computing display of a possible final state of the excavated area (Fig. 3) it may be seen that one basic plateau at the K135 is formed, that a total stripping off the remnant mountain massif between the two deposits occurs and a unique form, pleasant for eyes and convenient for a compelling and more than necessary redestination, comes out. Previously performed works in the deposit of dimensional stone (above K135) are fully sanified, being fitted into other bank plateaus, enabling thus a continuation of mining activities on a productive and very valuable layer of stone which sharply falls into the depth.

Performing the mining works on the “Seget” quarry in correspondence with drawn directions, the whole complex primarily develops into sporting-recreation center with a dominant plateau K135, with the area of about 6 ha. A sunken plateau K50 offers, due to its form, largeness and position, the objects of closed type, with a possible cover at the elevation K135.

It should be mentioned that some other solutions for redestination of the quarry which could be integrated into above said realizations (trade center, store-houses, flying down and taking off stations and similar) are feasible. Such extensive possibility for redestination need not to provoke astonishment if one takes into consideration the location and largeness of the quarry. There exists a chance for final realization of excavated areas in the frame of mining production which has at optimal solutions. In its final phase it should be improved by strictly planned architectonic and building complements.
Fig. 2 Three-dimensional display of the existing state of the "Seget" quarry
Fig. 3 Final state of excavated areas on the "Seget" quarry
CONCLUSION

It is a fact the quarry “Seget” of dimensional and technical-building stone, in vicinity of the town of Trogir, has grasped and devastated a considerable space in nature (about 16 ha). Due to its position, the immediate and wider environment does not tolerate the existing state of the works in realization and particularly will not stand it for ever.

Technical sanation of the quarry is not possible without letting the mining production going on, as it is a question of remarkable interventions in the landscape in which great quantities of rock material should be excavated and transported. Then it will be possible to create new adaptable forms with new acceptable contents interwoven in them.

There is required a coordination of the mining works and the new shaping with the scope to perform a purposeful redestination of the excavated spaces.

A question of final redestination of excavated spaces is multivariable in the frame of optimal mining shaping. It might be realized by additional architectonic-building interventions.

LITERATURE