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Oral Presentation

A New Occupation Option For Citizens Living in Mountainous / Rural Areas in The KOP Region: SUKOP Ornamental Stone Education and Production Ateliers

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Abstract

Presidency of Konya Plain Project Regional Development Administration (KOP-RDA) was established to support regional development in eight provinces, namely Konya, Aksaray, Karaman, Niğde, Kırıkkale, Kırşehir, Nevşehir and Yozgat in Central Anatolia. Almost half of the 4 million population in the KOP region live in the mountainous / rural areas and their income is quite low.

Selçuk University Gemstone Processing, Application and Education Atelier Project (SUKOP) founded in order to generate additional income by producing the gemstone for the citizens living in mountainous-rural areas in the KOP region in 2015. Ornamental stone processing training were given for the citizens in the mountainous/rural areas in the off-season periods in accordance with the purpose of the KOP Action Plan. Produced gemstones were used for spa stone, necklace, brooches, earrings, rings, bracelets, key chain, rosary and desktop ornaments to provide additional income.

Fundamental gemstone education is including basic information required for the processing of gemstones, cleaning, cutting, slicing, etching / shaping, polishing, drilling and jewellery production issues. In this context, firstly, in 2016, Selçuk University SUKOP Gemstone Research, Application and Education Atelier, then in 2016 Taşkent (Konya), in 2017 Ermenek (Karaman) and in 2018 Doğanhisar (Konya) production ateliers were established.

Fundamental gemstone educations were given to approximately 150 citizens mostly women and living in the mentioned mountainous / rural areas as well as living in different regions. In addition, were given gemstone education interested undergraduate and graduate students and citizens.

Owing to SUKOP Gemstone Processing, Application and Education Ateliers the non-existent gemstone education, the production of jewellery from natural stones and a new branch of business have been revealed in the KOP region. Thus, the citizens who live in mountainous / rural areas and have low income were provided with the opportunity to gain a new profession and additional income.

Keywords: Ornamental stone, semi-precious stone, gemstone education, Konya, SUKOP Gemstone Atelier



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Introduction

Throughout history, workable stones and gemstones, which are indispensable for mankind and are now very popular for various reasons, and jewelry made with natural stones have a very common use. In particular, the potentially searching and processing of semi-precious and precious stones, which are indispensable raw materials of the jewelry and jewelry design industry, is getting more and more important.

Gemstones generally describe natural organic stones and some organic materials (coral, amber, pearl, ivory etc.) and some artificial (synthetic) and imitation stones on the market are also considered as gemstones.

The main themes of gemology are the formation conditions of gemstones, the environment in which they are located, and the physical and chemical properties of these stones. The basic aim of gemology is to define the ornamental stones in their raw, processed form, without making any abrasive or destructive tests on them.

The gemstones are generally semi-precious stones in Turkey. The history of Anatolian precious stone workmanship dates back to prehistoric times (Fidan, 2016). Many archaeological excavations have found precious stones used in Anatolia. Gemstones are usually hard, so they were first used in arrowheads, cutters and spears. Emeralds, rubies and sapphires are reported to be found in historical sources. The most beautiful example from the ancient times is that obsidian is used as a mirror and cutting tool.

Sepiolite and blue chalcedony in Eskişehir, Oltu in Erzurum, Çubuk agate in Ankara and black coral are worldly known. In addition, green, blue, and white colored dandelion opals in many parts of Turkey; chalcedony, agate and jasper in various colors and patterns; Quartz, epidote garnet crystals and petrified woods (Hatipoğlu and Kibici, 2010). Today, many new minerals, rocks and organic materials have started to be defined as precious stones and our country is enriched with gemstone potential species and reserves (Arık et al., 2017).

There is no significant gemstone production in Turkey. At present, small ateliers provide their needs from amateur stone collectors or directly collect from various fields. The amount of these does not exceed a few tons a year. There are also mining activities in small and narrow galleries from time to time for blue chalcedony, oltustone and sepiolite.

The gemstones, which are collected in small quantities in our country, are cut and polished in several small-scale workshops focused on large cities such as Istanbul, Ankara and Izmir and are used for making jewelry and decoration stuff. However, they have very limited sales volume and consumption. On the other hand, most of the goods marketed in jewelry stores and tourist souvenir shops use imported synthetic and imitation ornamental stones (Hatipoğlu and Kibici, 2010; Arık, 2017 a and b; Arık et al., 2017).

In recent years, there has been an enthusiasm in the studies for the scientific evaluation of gemstones. In this context, İzmir Dokuz Eylül University has passed a vocational high school activity that provides two years of education in its own right. M.T.A. project is being carried out by the General Directorate on the exploration and inventory of precious and semi-precious stones of Turkey. In addition, many geology departments of our universities have doctorate and master's studies for



INTERNATIONAL CONGRESS on ENGINEERING and ARCHITECTURE

14-16 November 2018

Alanya / Turkey

ornamental stones. All these activities are at an early stage and will lead to positive developments in the coming (Hatipoğlu and Arslan, 2010; Arık, 2017a and b; Arık et al., 2014).

In 1983, it was opened for the first time in our country under the pre-graduate level in the field of gemstone processing in the name of Stone and Metal Processing Program in Dokuz Eylül University (Hatipoğlu and Arslan, 2010). After that Marmara and then Muğla, Mersin, Kütahya-Dumlupınar, Afyon-Kocatepe, Gazi, Erzurum-Atatürk, Trakya, Aydın-Adnan Menderes, Kahramanmaraş Sütçü İmam, Kocaeli, Balıkesir, Kastamonu, Mardin-Artuklu, Süleyman Demirel, Batman, Hitit, Bitlis-Eren universities, the pre-bachelor's degree programs in junior-level jewelry-jewelry education in the state universities of Turkey have passed 20.

In recent years, some public organizations have been providing jewelry and jewelry design training courses within the scope of municipal vocational training courses. In addition, pre-graduate and undergraduate level stone processing, jewelry and jewelry design departments have been opened especially at foundation universities in İstanbul (Arık, 2017a)

In Turkey, there are many successful examples of gemstone ateliers those are supported by the universities local administrations, and the Ministry of Development. There is a classroom and an instructor at the capacity to provide basic education for most of the established workshops. SUKOP Selçuk University Gemstone Research, Application and Education Atelier is the first in-house education and production atelier established by the cooperation of KOP-RDA and Selçuk University Rectorate (Arık et al, 2017).

Material and Method

In May 2016, with the support of the Taşkent Disyric Governorship, Taşkent Municipality and Civil Society Organizations such as Taşkent Solidarity and Culture Foundation, 12 trainees from Taşkent and surrounding settlements were given basic trainings at the Central Workshop. Gemstone Processing and production Atelier was established in Taşkent with the slogan "Stone is processed in Taşkent" is handled in August 2016 and production started (Arık et al., 2017; Fig. 1a,b).

In order to raise additional income for the citizens living in the mountainous countryside exceptionally agricultural season second gemstone process and production atelier founded in the Ermenek (Karaman) (Fig. 1c). Atelier establish works started in November, 2016 with the contributions of Ermenek Municipality and Ermenek gemstone atelier was established in March 2017 (Fig. 1d). 63 citizens living in Ermenek were given a basic gemstone processing course and 10 citizens showed success in further education in May 2017.

In order to raise additional income for the citizens living in the Doğanhisar (Konya) Region third gemstone process and production atelier founded in the Doğanhisar (Konya). Atelier establishment works started in September 2017 with the support of the KOP administration, Doğanhisar District Governorship, Doğanhisar Municipality, District Directorate of National Education and Public Education Center Directorate and in March 2018 was established. 21 citizens living in Doğanhisar were given a basic gemstone processing course with the support of Doğanhisar Public Education Center Directorate and İŞKUR Konya Provincial Directorat in May 2018.



Figure 1. (a, b) SUKOP ornamental stone education and production atelier (in Selçuk University), (c) Doğanhisar atelier, (d) Ermenek atelier

Research Findings and Discussion

SUKOP Project was prepared in order to increase the income level of people in non-agricultural areas within the context of "Developing Models for Investigating and Expanding Non-seasonal Income-Making Activities in Rural Areas in the KOP Region", supported by Konya Plain Project Regional Development Administration (KOP BKİ). Depending on the variety of geological units in the KOP region, gemstones are a potentially rich region. Opal, agate, quartz, obsidian and so on. The volcanic rocks (Erenler-Alacadağ, Takkeli Dağ, Karacadağ, Karadağ, Hasandağ, Melendiz and Erciyes volcanoes) which are very fertile in terms of gemstones display wide spreads in the region. In addition, there are also very important gemstone potentials in Kırşehir, Kırıkkale, Nevşehir and Yozgat which are included in KOP region in 2016. There are sources of travertine, onyx, etc. around the hot water sources in Kavaklı (Seydişehir), Akhüyük (Ereğli), Aksaray and surrounding areas.

Peridotitic rocks (dunite, harzburgite and serpentinites), Hatip, Çayırbağı, Bozkır, Yükselen, Yunak, Altinekin, Ereğli (Konya), Çiftahan (Niğde), Ayrancı (Karaman) regions have significant potential (Arık et al., 2014; Arık et al., 2017).

Particularly in recent years, Yozgat Divanlı agates, which have an increasing preference, have different colored calcedony species which do not enter the literature in Konya, opal species, rubellite, morganite, heliodor, goshenite, blue calcedony, spessartite, especially amethyst in Sarıkaya and Çekerek Silicified rocks also give very good results.

It is aimed to provide additional income to citizens living in mountainous / rural areas and non-agricultural areas. "SUKOP Central Gemstone Education and Application Atelier" founded in 2016. A specific profession area created in the districts where the pilot atelier will be founded (rosary, necklace, ring, clock, etc.) and the raw materials and marketing of the processed products will be provided by Selçuk University. It is observed that agricultural activities throughout the KOP region are limited to an average of five months throughout the year. This customary conception of income comes to the hampers to new untested jobs outside the agricultural season. In order to eliminate present discouragement and provide additional income for our citizens in the mountainous /rural areas gemstone processing education was given in the SUKOP gemstone processing ateliers.

The center workshop produces decorative objects, jewelery, rosaries (Fig. 2), etc. from different qualities of natural stones obtained from different regions of our country and the world. Since cabachon production technique is used in particular research and development studies for cabochon products are mainly carried out In this sense, field studies were carried out in other provinces of Konya and KOP, and some important sub-regions were identified. In addition to silicified rocks, opal, agate, onyx and peridotite occurrences around Konya, the obsidian in Aksaray and Niğde and agate and other precious stones in Yozgat region show promising potential.



Figure 2. The rosary from the SUKOP ornamental stone atelier

The plague of the Alif with Mevlevi hat on the leucite syenite stand is the important products of SUKOP Atelier (Fig. 3). Alif made of basalt, and Mevlevi image made of chalcedony.

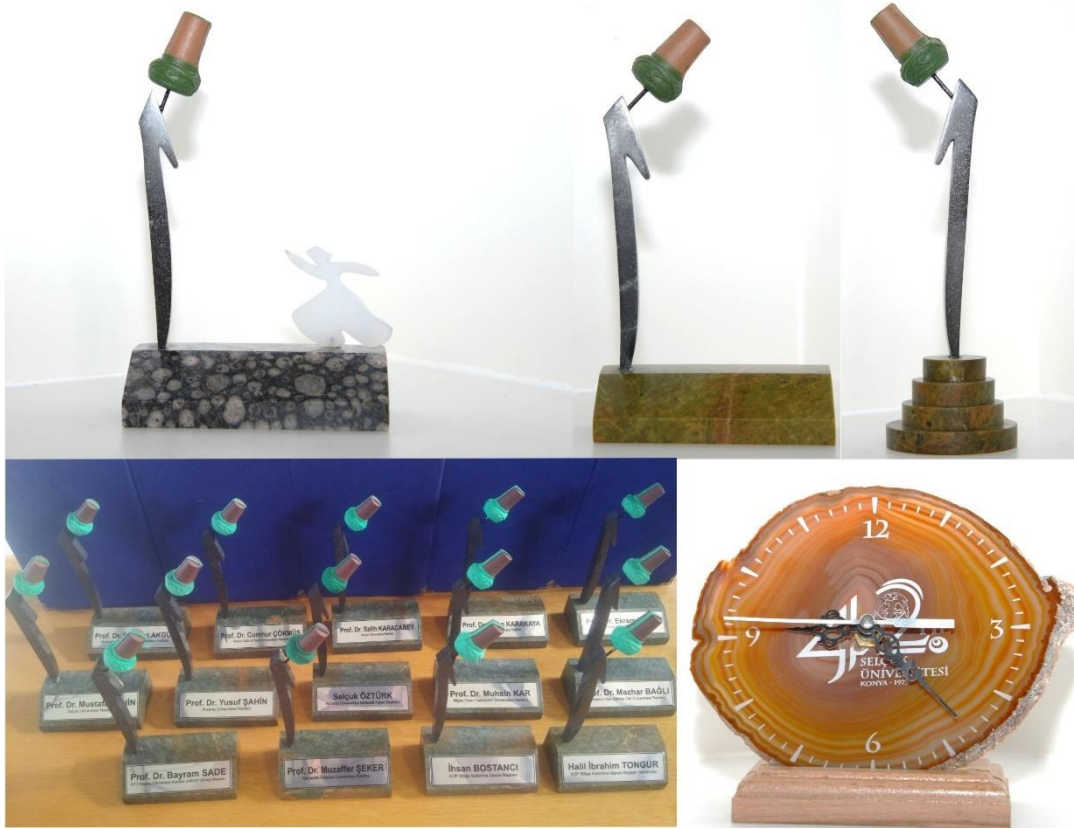


Figure 3. Production of the SUKOP ornamental stone atelier

Results and Suggestions

SUKOP Selçuk University Ornamental Stone Investigation, Application and Training Atelier Project was prepared in order to increase the income level of people in non-agricultural areas within the context of "Developing Models for Investigating and Expanding Non-seasonal Income-Making Activities in Rural Areas in the KOP Region", supported by Konya Plain Project Regional Development Administration (KOP RDA) and cooperation with Selçuk University. At present Central atelier with Taşkent, Ermenek and Doğanhisar ateliers founded. Besides these ateliers some new ateliers (Aydıncık, Ereğli etc.) will be planned. Production workshops will be provided to meet the various needs of the sector with small supports to be given to the citizens, and macro earnings can be obtained through micro supports. The products of the citizens who collect the workable stones in their area and perform a part of the stone processing will be evaluated by the center and a significant income will be provided. The income from the sale of the products will provide additional income to the workshop, in particular the citizens who bring up this product in the rural areas, and more comprehensive training will be provided. Graduate and undergraduate students of Selçuk University Department of Geological Engineering have also had the opportunity to apply for gemstone processing



INTERNATIONAL CONGRESS on ENGINEERING and ARCHITECTURE

14-16 November 2018

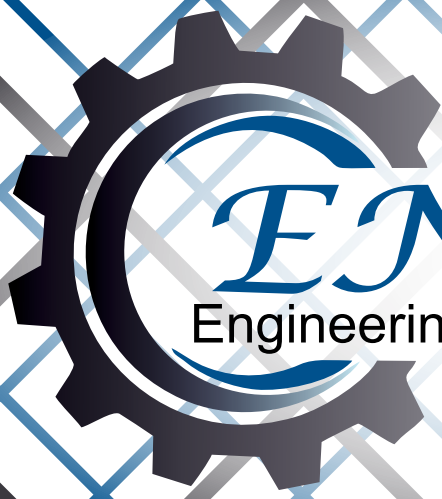
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